

Young Adult Perceptions of Patient-Provider Interactions in Primary Care

Kelcie McCafferty

University of Alaska Anchorage

Submitted to the University of Alaska Anchorage Psychology Department undergraduate degree program in partial fulfillment of the requirements for Honors in Psychology.

DocuSigned by:

Veronica Howard

A3EB366867EB400...

Veronica Howard, PhD, BCBA-D

DocuSigned by:

Corrie Whitmore

91B482C18BC34E1

Corrie Whitmore, PhD

Acknowledgements

I believe that we all encounter people in our lives that will profoundly teach us, change us, and inspire us. Although there are many individuals that have contributed to this project, I would like to especially acknowledge those that have profoundly taught me, changed me, and inspired me. Without them, this project would not have been possible.

I would like to first thank sincerely the tireless efforts of my Thesis Advisor Dr. Veronica Howard. Without her dedication to me, this project, and my growth as a student this project would not have been possible. She has given me endless amounts of her knowledge and wisdom both in research and in life. Dr. Howard's humor, tenacity, and kindness have inspired me as a researcher, professional, and person. It has been one of the greatest privileges and honors of my academic career to have been her student. I would also like to thank Dr. Corrie Whitmore for her invaluable support and knowledge. Dr. Whitmore's insight and brilliance helped further this project and me greatly. I am incredibly grateful to have had the honor of learning from her.

I am extremely thankful for my dear friends Rachel Wallace, Molly McQueen, Brittany Sutter, and Rebekah Kiester. These women have inspired me to be not only a better student, but also a better person. Their friendship is something I will carry with me for years to come.

Finally, I would like to extend my heartfelt thanks to my family: Kelli, Shawn, and Conor McCafferty, and my Husband, Cody Tuma. Individually and together, they have given to me more than I ever could have asked for. Without their love, kindness, wisdom, and unfounded belief in me I never would have dreamed to complete this project. They made me the person I am today. I hope only to continue to work my hardest to live up to the lofty bar they have set as undoubtedly amazing people.

Abstract

The patient-provider relationship may significantly impact a variety of health-related factors, ranging from the experience of chronic pain. (Jonsdottir, Oskarsson, & Jonsdottir, 2016) to overall healthcare outcomes (Beach, Keruly, & Moore, 2006). Patient demographics and previous medical history can influence patient perceptions of providers (Marchland, Palis, & Oviedo-Jones, 2016; Dennison et al., 2019), with previous studies exploring differences in the patient experience as a function of race, ethnicity, gender, location, socioeconomic status, and experience of chronic pain. However, few studies have assessed the interaction of multiple demographic and medical factors with patient perceptions of their interactions with providers. This study evaluated whether young adult patients' demographic, medical, and gender-related factors were associated with perceptions of their most recent Primary Care Provider (PCP) interaction. Participants were surveyed regarding their medical history, experience of chronic pain, patient trust in physicians, patient-provider depth of relationship, quality of interactions with their PCP, and view the overall healthcare experience. Results indicate that women and participants with chronic pain disorders, mental health disorders, and sexual health disorders reported lower levels of satisfaction with interactions with providers. Moreover, inconsistency between quantitative ratings of recent PCP relationship quality and open-ended qualitative responses indicate a potential lingering effect of prior poor provider interactions on participants' perceptions of health care providers.

Keywords: Primary Care Provider (PCP), young adult perceptions, patient-provider relationship, sexual health disorders, mental health disorders, chronic pain

Young Adult Perceptions of Patient-Provider Interactions in Primary Care

Patient-Provider Relationship

The patient-provider relationship is the therapeutic bond developed between a medical professional and a patient under their care (Chipidza et al., 2015). Hagihara and Tarumi (2006, 2018) found that the quality of a patients' relationship with a provider was directly associated with treatment outcomes; those with good relationships had better treatment outcomes, those with poor relationships had poor outcomes. Given the high-stakes nature of medical care, significant research has been conducted to understand important elements of the relationship. Factors considered to be a significant part of this bond are communication, trust, and the overall depth of relationship.

Communication is an important element of developing a positive patient-provider relationship (Ruben, Meterko, & Bokhour, 2018). Positive communication includes seeking and recognizing an individual's needs and aims for treatment, concerns, and emotions. Ruben and colleagues (2018) examined the relationship between Veteran's Affairs (VA) patient perceptions of provider communication and reported pain outcomes. Their results showed that patients who report experiencing patient-centered communication from their provider reported lower levels of pain and improved treatment outcomes. Similarly, Jonsdottir, Gunnarsdottir, Oskarsson, and Jonsdottir (2016) found that a relationship existed between patient-provider communication and the experience of pain; patients reporting poor communication with the provider expressed increased pain levels during treatment. Furthermore, perceived level of provider support was found to impact the participants' willingness to discuss treatment satisfactions and symptoms with providers. This evidence suggests that patient perception of provider communication is an important mediating factor in treatment outcomes.

Trust is another core aspect of the patient-provider relationship (Hall, Dugan, Zheng, & Mishra, 2001). It is defined as the “[optimistic] acceptance of a [vulnerable] situation in which the truster believes the trustee will [care] for the truster’s interests.” (Hall et al., 2001, p. 615). Hall et al. (2001) posit that trust helps foster patient willingness to continually seek and participate in treatment, give personal information, and subsequently improve outcomes. While trust and satisfaction are independent constructs that represent different aspects of the patient-provider relationship, Hall et al. (2001) further report that increased trust is linked to improved satisfaction with the physician and treatment outcomes. This trust may have additional effects for future interactions, as having positive outcomes with past providers provides a basis to trust in other future providers (Hall et al., 2001; Dennison et al., 2019).

Anderson and Dedrick (1990) developed the Trust in Physician Scale (TPS) in an effort to empirically assess the level of patient-provider trust. The 11-item measure evaluates elements of trust such as assurance in confidentiality, consideration and prioritization of personal needs in treatment, and case expertise. The items are rated using a five-point Likert-type scale. Initial reliability and validity was demonstrated by showing that patients with higher levels of trust were more likely to be satisfied with the treatment. The TPS has been consistently validated across time, settings, and participants (Thom et al., 1999; Aloba et al., 2014).

Patient-provider depth of relationship is a less thoroughly explored factor of the patient-provider relationship. Unlike trust or communication, depth focuses on the interpersonal relationship developed between the patient and physician. Ridd, Lewis, Peters, and Salisbury (2011) created the Patient-Provider Depth of Relationship (PPDR) scale to address the lack of empirically validated scales assessing the depth of relationship. The nine-item PPDR evaluates the patient-provider relationship along dimensions of comfort with providers, mutual personal

PATIENT PERCEPTIONS

6

knowledge, perceived levels of care, maintenance of expectations, acceptance, and perceived levels of respect. Subscales of the patient-doctor depth of relationship include personal knowledge of the patient and connectedness. PPDR items are rated using a five-point Likert-type scale. The PPDR was validated between new and established patients to ensure that the instrument was reliable and accurately assessing relationship depth rather than other variables, such as familiarity or trust.

Follow-up studies found that a deep physician-patient relationship resulted in increased patient-directed addressing of psychological and emotional issues (Merriel, Salisbury, Metcalfe, Ridd, 2015). This allows for efficient consultations with patients as more issues can be addressed in a single setting instead of across multiple appointments (Merriel et al., 2015). The results also demonstrated that patients discussed more issues with providers during a consultation if a greater depth of relationship exists; this indicates that patients may be more comfortable speaking with providers when there is a greater depth of relationship.

Communication, trust, and depth of relationship have been demonstrated to be essential components of the patient-provider relationship, each linked to beneficial patient outcomes. However, the definitions of these constructs varied across studies. Additionally, studies evaluating these relationship variables generally focus on a single independent variable (e.g., communication) conducted with a specific population (e.g., diabetic or VA patients), making it difficult to generalize these results to larger client populations. These studies also fail to account for the specific client demographic and diagnostic variables may be tied directly to the quality of relationship.

Patient Demographics and Diagnostic Variables

Individual demographic factors may impact the interactions that patients have with providers. For instance, race, ethnicity, nationality and culture of origin have been demonstrated to impact the communication between the provider and patient (Komaric et al., 2012; Babitsch, Braun, Borde, and David, 2008; Jerant et al., 2011) each evaluated the effect of race, ethnicity, nationality, and culture of origin on the patient-provider relationship. These studies found a lack of culturally appropriate communication and poor relationships when patients and providers do not share a common demographic background (Babitsch et al., 2008). Conversely, patients and providers from similar backgrounds were more likely to report treatment adherence (Jerant et al., 2011).

Jonsdottir, Gunnarsdottir, Oskarsson, and Jonsdottir (2016) assessed the association between chronic pain and sociodemographic variables. Results showed that patients from a lower SES than the provider were less likely to be involved in decision making. Similarly, Wallace, DeVoeblan, Bennet, Roskos, and Fryer (2008) evaluated the effect of location on perceived quality of interactions and found that participants in urban areas were most likely to report poorer communication with providers. These studies serve as evidence for the idea that differences in personal demographic variables create a communication barrier and providers may not be aware of personal biases against certain groups of individuals; Moreover, that providers are unable to develop effective medical relationships with patients of a different background than their own.

Elliot and colleagues (2012) evaluated differences in perception of inpatient care quality between men and women. Primarily, studies have focused specifically on communication and overall treatment outcomes as opposed to the specific qualities that could be impacting the

relationship patients have with providers. Women differed in overall communication scores in that they reported generally higher quality communication with providers than men in the sample, except with respect to medication explanations (Elliot et al., 2012). Hoffman and Tazian (2003) found differences in treatment quality between men and women. Women in the sample were less likely to receive treatment for chest pain and more likely to experience aggression from providers during initial consultations. Gender concordance between the physician and patient has a tendency to decrease the likelihood of these issues and improve treatment outcomes (Jerant et al., 2011). However, few studies have examined other factors relating to sex and gender, such as sexual health concerns (e.g., menstruation issues), or patient-provider relationship quality with age, sex, or gender as mediating factors.

“Invisible” Diagnostic Variables

Certain diagnostic variables not visible to the naked eye – colloquially referred to as “invisible illnesses” – may also impact the patient-provider relationship. These illnesses or concerns can include any disease or disorder that a provider cannot see without extensive testing, or potentially not at all, including chronic pain or illnesses, sexual health concerns, and mental health disorders.

Chronic pain can significantly impact the quality of life for patients, and may also impact the patient-provider relationship. Jonsdottir et al. (2016) found that patients with chronic pain reported poorer patient-provider communication, and that patient with higher levels of chronic pain felt less supported by the providers and reported significantly less satisfaction related to symptom control and treatment outcomes. Ruben et al. (2017) demonstrated similar results and found a relationship between patient experiences of pain and ratings of provider communication. Participants that reported positive communication with providers were related to lower levels of

PATIENT PERCEPTIONS

9

pain and pain interference (Ruben et al., 2017). Canovas et al. (2018) also correlated patient-provider interactions with pain levels in chronic pain patients. The results demonstrated that empathy-focused communication was related to pain relief in patients with chronic pain (Canovas et al., 2018). These studies demonstrate the impact that interactions with providers have on experiences of pain in chronic pain patients. Providers may have more control over patient outcomes than previously thought and improving the relationship with patients may be necessary to improve the treatment outcome.

The chronic pain grade scale (CPGS) is a 6-item scale developed to assess current levels of pain, levels of pain over time, and pain interference with normal daily activities (Smith et al., 1997). This measure was created to describe chronic pain levels using an increasing and decreasing gradient as opposed to a simplistic, “with” or “without” pain response. Participants rate items in this scale on a 10-point Likert-type scale for levels of pain (0 = no pain, 10 = extreme pain) and interference (0 = no interference, 10 = pain completely prevents activities). The last interference items ask how often the experience of pain has caused participants to change activities (0 = no change, 10 = complete change). Reliability and validity of the CPGS have been demonstrated across multiple studies (Dixon et al., 2007; Elliot et al., 2001; Smith et al., 1997).

Stigmas associated with mental health concerns may influence patient-provider interactions, resulting in substantial effects on the treatment received from providers. Marchland and Oveido-Joekes (2016) found that 64.2% of respondents with a mental health disorder also reported experiences of prejudice in the health care setting. Respondents with substance, mood, or anxiety disorders also reported a higher likelihood of experiencing prejudice. The results of this study indicate that prejudices against those with mental health disorders exist in the medical

setting. Knaak et al. (2017) demonstrated similar results, and found that participants with mental health disorders reported feeling dehumanized and experienced discrimination by healthcare professionals they had encountered previously.

Stigma against patients with mental health diagnoses has also been demonstrated objectively. Vistorte et al. (2018) evaluated the diagnostic performance 387 medical providers in Bolivia, Brazil, Cuba, and Chile with respect to mental health symptoms. Providers were given vignettes describing symptoms and were asked to develop a hypothetical treatment plan. Lack of knowledge, adequate training, and stigmatizing attitudes were associated with poorer diagnostic effectiveness; providers had difficulty correctly identifying the mental health diagnosis from the information provided in the vignettes. After controlling for the effects of knowledge and training, stigma was associated with an increased likelihood of referring the hypothetical patient to a psychiatrist for treatment, especially in the vignettes that indicated the existence of somatoform symptomatology. These results are consistent with previous studies demonstrating that primary care physicians have difficulty recognizing mental health disorders, resulting in extreme variability and misdiagnosis (Wittchen et al., 2003). These studies highlight the importance of primary care providers' training to correctly identify disorders, and also demonstrate the danger of the tacit gatekeeping role that primary care providers play in medical community. If a patient has a continued history of incorrect referral, diagnosis, or treatment, they may be less likely to seek aid in the future. This is detrimental considering there has been little examination of the impact these experiences have on patient-provider relationship quality, patient perception of providers, and patient recidivism.

Few studies examine the relationship between menstruation concerns and patient-provider interactions. Rafique and Al-Sheikh (2018) conducted a study evaluating the prevalence

of menstruation-related issues with female students between the ages of 18 and 25. The researchers found that 91% of the students reported experiencing some form of menstruation issue, most notably experiencing severe dysmenorrhea (menstrual cramps, 89.7%), premenstrual symptoms (46.7%), and irregular cycles (27%), and that these symptoms were strongly associated with increased stress. Considering the prevalence of women's health issues and the substantial impact these symptoms can have on the patients' life, having a high-quality patient-provider relationship may increase the likelihood of disclosing these symptoms to the provider.

Disclosure is especially important considering that women have been less likely to have their pain issues effectively addressed by providers. Chen et al. (2008) evaluated gender disparities in treatment of acute abdominal pain in emergency departments. Women in the sample were found to be less likely to receive analgesic treatment and waited 16 minutes longer in the waiting room than men. This study did not control for a history of menstrual concerns or time of last menstrual cycle; additional research in this area is needed to understand if menstrual issues can be partially responsible for gender disparities in pain treatment as anecdotal evidence suggests dysmenorrhea is a common scapegoat for pain concerns.

While research commonly reviews gender disparities with males on the receiving end of more positive effects, men also experience sex-related medical concerns. Premature ejaculation and erectile dysfunction are among the most common sexual health disorders (Laumann, Paik & Rosen, 1999), though most studies focus on aging patients. In younger patients, approximately 31% of men report experiencing sexual dysfunction, most frequently premature ejaculation (Rosen, 2000). Akre and colleagues (2014) further explored sexual dysfunction longitudinally in Swiss men aged 18 to 25. They found that 43.9% of young men who reported premature ejaculation and 51% of men who reported erectile dysfunction during the first survey still

experienced the symptoms at follow up 15 months later. This suggests that sexual health disorders can have lingering and potentially wide-reaching effects in many domains of the patients' lives.

For both men and women, sexual health concerns can cause a significant amount of stress (Rafique and Al-Sheikh, 2018). Few studies explore the relationship between sexual dysfunction and the patient-provider relationship. Coupling this paucity of research with high frequency of menstruation issues and sexual dysfunctions, it is critical to examine these issues are related to patient perceptions of the patient-provider relationship.

Study Aims

Evidence demonstrates a significant link between the patient-provider relationship and treatment outcomes, yet few studies have broadly reviewed the myriad of patient factors that may affect the provider's interactions with the patient. Further, few studies exist evaluating the patient-provider relationship with young patients. To better understand other potential variables that may significantly impact the patient-provider relationship, this study explores the relationship between individual demographic (e.g., race/ethnicity, location, military affiliation, etc.) and diagnostic characteristics (e.g., chronic pain disorders, mental health concerns, women's and men's health issues) and individual and participants' perceptions of the quality of their patient-provider interactions. Specifically, this study aims to identify whether differences in perceived patient-provider relationship exist between men and women. The study will also explore whether differences in perceived patient-provider relationship exist between individuals with and without chronic pain, mental health, and sexual health concerns.

Method

Participants and Recruitment

To better understand young adults' perceptions of patient-provider relationship, recruitment advertisements specifically targeted young adults, specifically participants between the ages of 18 and 40 (Lally & Valentine-French, 2019). Participants included students recruited from an open-enrollment university in the Pacific Northwest and participants recruited via social media. Student participants were recruited through the university's student research portal and could earn a small amount of extra credit (determined by course instructors based on department standards) for participation in the study. Social media participants were recruited through recruitment posters shared via Facebook® and Instagram®, and were invited to share the survey with others to recruit participants using snowball sampling (Noy, 2006). No incentives for participation were provided to general population participants.

Exclusion criteria was determined post-hoc after receiving the initial set of responses. Any participants that were above the age of 40 and/or completed less than 93% of the survey were excluded from analysis to ensure that only complete responses were included in the dataset and that respondents were within the pre-determined age range. Ten participants were excluded from final analysis due to age and 40 participants were excluded due to noncompletion of the survey.

Survey Delivery

All data were collected via the online survey program *Qualtrics*®. Survey links were posted with a recruitment poster and message to Facebook® and Instagram® and on the university's student research portal. Participant responses were separated by recruitment source, with social media participants receiving a separate survey link from students recruited via the

PATIENT PERCEPTIONS

14

research portal. All participants received the same survey questions, though student participants were redirected to a separate identifying quiz managed by the university to provide extra credit for participation. All collected data were anonymous and the *Qualtrics* option to collect IP address information was disabled to ensure participant confidentiality.

The survey included an electronic consent form that required participants to confirm that they were aged 18 or older and agreed to participate before being directed to the survey questions. If participants answered “no” to consenting or to being 18 years of age or older, they were redirected to the end of the survey with a message thanking them for participation. All participants received resources to find affordable health care in their area, mental health care, insurance coverage aid, and sources to find treatment centers with history treating LGBTQ+ individuals.

Measures

The survey included 62 items in eight sections in a variety of formats (described below). Participants only received questions relevant to their personal experience. For instance, if a participant selected “female” as their sex/gender, *Qualtrics* was programmed to deliver the women’s health questions, but not the men’s health questions. As a result, participants did not respond to all 62 items. See Appendix A for the full survey instrument.

Demographics

All participants received the 14-item demographic section. Questions included age, race/ethnicity, sex/gender identity, military status, income, state or province of residence, residence population size, relationship status, first language, religion, and location of recruitment. To minimize any discomfort and maximize privacy, participants could elect to leave

any of these questions blank except age, which was used to verify that the participant was over the age of 18.

Provider History

All participants received the seven-item provider history section. These questions assessed provider continuity (e.g., if they had been seeing the same provider for more than six months, had recently switched providers, saw multiple providers, etc.), perceived quality of care in the participants' history, knowledge of quality care options, and important provider factors for the participant. In addition, this section also included items that asked about the provider's degree (e.g., Medical Doctor, Nurse Practitioner, etc.), provider sex or gender identity, and provider race or ethnicity.

Patient-Doctor Depth of Relationship

All participants received an adapted version of the 9 item Patient-Doctor Depth of Relationship scale (PDDR; Ridd et al., 2011). The PDDR assesses factors in the depth of relationship, such as a sense of caring from the provider, interpersonal knowledge, and acceptance. Participants were asked to rate their level of agreement with a series of statements about their provider along a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree).

Trust in Physician Scale (TPS)

All participants received an adapted version of the 11-item Trust in Physician Scale (TPS; Anderson & Dedrick, 1990). The TPS measures level in trust with physicians, such as the participant's perception of the provider's level of caring, trust in the provider's medical opinion, and the participant's compliance with provider treatment recommendations. Participants were

asked to rate their level of agreement with a series of statements about their provider along a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree).

Participant Perception of Interactions with Providers

All participants received 23 items separated into three sections designed to assess various elements of the participants' perception of interactions with their medical providers. Each of the tables represented a different focus in the patient-doctor interaction, including clinic and provider factors, personal factors and satisfaction, and interaction with providers (described in detail below). Participants were asked to rate their level of agreement with statements about their provider along a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree) with a "does not apply" option.

Clinic and Provider Factors. The survey included 11 items with statements evaluating the clinical setting and provider preferences. Statements were provided that covered topics such as the participants' preference around provider race/ethnicity, assurance in confidentiality, available space to speak privately with providers, and specialist providers. The main focus was to assess the patient's perception of the treatment environment.

Personal Factors and Satisfaction. The survey included 13 items assessing the participants' perception of how personal factors affect the quality of the care received and if there is an overall satisfaction with the provider. Personal factors evaluated included participants' sex or gender identity, race or ethnicity, personality, personal beliefs, sexual history and sexual orientation. Satisfaction was assessed by providing statements about provider knowledge, diagnosis satisfaction, treatment satisfaction, treatment options provided, respect, and inclusion of personal beliefs into the treatment plan.

Interactions with Providers. The survey included nine items evaluating the participants' perception of how the provider interacted with them. Factors included trust in the provider, listening, blaming behavior, and how issues are addressed with the participant. Positive and negatively phrased statements were included in the measure.

Medical History

All participants received five questions related to their medical history. Participants were asked to respond specifically to experiences of chronic pain, chronic pain disorders, and mental health disorders. Responses to these questions determined if the following section was delivered.

Chronic Pain Grade Scale

Participants that reported experiencing chronic pain or having a chronic pain disorder were shown the 6-item Chronic Pain Grade Scale (CPGS). Participants responded to the questions using a scale from 0-10. This measure was chosen for its reliability, validity, and open-accessibility.

Menstruation Issues and Women's Sexual Health

Female participants received 14 items assessing their experiences with menstruation and addressing issues with primary care providers. Female participants were also asked about birth control use, diagnosed women's health issues (e.g., endometriosis), menstrual pain and bleeding severity, comfort with addressing menstrual issues, and pregnancy history. A matrix table was provided that assessed the participants' perception of the interactions with providers during consultations to address menstruation issues. Response options for the matrix table included nine options that ranged from "Strongly Disagree" to "Strongly Agree" with a "does not apply" option.

Male Sexual Health Issues

Male participants received 8 items assessing history of sexual health disorders and experiences with addressing those issues with providers. Male participants were asked about birth control use (e.g., vasectomy), diagnosed sexual dysfunctions, and dysfunction severity. A matrix table was provided that assessed the participants' perception of the interactions with providers during consultations to address sexual health or dysfunction issues. Response options for the matrix table included nine options that ranged from "Strongly Disagree" to "Strongly Agree" with a "does not apply" option.

Results

Demographics of Participants

150 participants responded to the survey. However, 50 participants were excluded from analysis due to being over the age cap or for non-completion of the survey. Of the 100 participants whose data was included in analyses, there were 83 women, 14 men, 1 transgender woman, 2 transgender men (indicated through choice or through indicating "FTM" in the other field), and 1 participant that identified as "other" without further elaboration. Overwhelmingly, the sample was white (71%), Christian (50%), lived in urban areas (58%), spoke English as their first language (90%), and middle-income (\$45,000 - \$100,000+, 62%). Ages were distributed relatively evenly across participants (figure 8) and 95% of participants did not have prior or current military service. Participants also reported their current healthcare status in reference to whether or not they were receiving healthcare from a provider, how long they had been receiving care, or the reason why they had chosen to not seek care. It is important to note that 63% of the sample stated that they have been seeing their primary care provider for six months or more, but 14% of the sample chooses not to seek medical care and 2% recently changed providers due to sub-par care at previous clinics. See figures 1-10 for detailed demographic information.

Gender and Perception of Providers

Participants rated their providers on the PPDR, PPIP and the TPS measures. Differences between ratings of female ($n = 83$) or male ($n = 14$) respondents were analyzed using an independent samples t -test. Significant differences were found in continuity of care [$t(92) = -2.032, p < 0.001$], provider taking the participant seriously [$t(92) = -0.056, p = 0.057$], the effect of sexual orientation on care received [$t(94) = -1.79, p = 0.01$], the effect of gender on care [$t(94) = -1.19, p = 0.006$], the effect of sexual history on care received [$t(94) = -1.73, p = 0.026$], and trust in provider's advice [$t(94) = -1.51, p = 0.009$]. The differences in t -tests indicate that women were responding with overall lower scores than men to these items, with women in the sample more likely to report issues with their providers on those specific items than men in the sample. Additionally, women were more likely to respond with higher levels of agreement for negative items than males (e.g., "I feel that my primary care provider doesn't listen when I ask for help").

There were no statistically significant differences found with any of the other variables, though the effect of beliefs on care received [$t(94) = -1.428, p > 0.05$], distrust in the provider [$t(94) = 0.806, p > 0.05$], and the provider exhibits anger related behavior towards the patient [$t(94) = 0.747, p > 0.05$] were nearly at the 0.05 level. See Table 1 for additional details.

Women were more likely to report that their gender significantly impacts the quality of their care. They were less likely to feel like their provider took their issues seriously, that their sexual orientation and/or sexual history impacted the quality of care they received, and that their beliefs affected the care they received. Women were also less likely to report trusting the advice of their provider than men and were more likely to endorse the negative statements about their provider, suggesting overall poorer patient-provider relationships.

Women's Health Concerns and Perception of Providers

Female participants received a series of items assessing their experience with menstrual-related health concerns and addressing those concerns with providers (see appendix A for survey instrument). Independent *t*-tests were conducted to determine if differences existed between participants reporting that they had ($n = 47$) or had not ($n = 35$) addressed menstrual concerns with their provider. Significant differences were found in how well the participant knows their provider [$t(80) = -0.32, p = 0.036$], the provider knowing the participant as a person [$t(80) = -0.38, p = 0.025$], the patient knowing what to expect from this provider [$t(79) = 1.12, p = 0.015$], the provider taking the participant seriously [$t(79) = 0.765, p = 0.019$], the participant trusting the provider's judgments about their medical care [$t(79) = 1.152, p = 0.009$], the provider doing all that they can to help the participant [$t(79) = -1.49, p = 0.002$], the participant feeling involved in the decision making regarding their care [$t(79) = 1.526, p = 0.004$], that the provider remembering and understands the participant's medical history [$t(79) = 1.62, p = 0.023$], the effect of the participants' beliefs on care received [$t(79) = -0.73, p = 0.048$], the provider does not listen when the participant asks for help [$t(79) = -0.71, p = 0.032$], the provider understanding the participant's menstrual-related health concerns [$t(79) = 3.69, p = 0.001$], the provider listening and considering the specific needs of the participant when addressing menstrual-related concerns [$t(79) = 4.78, p < 0.001$], the participant feeling comfortable addressing their menstrual related concerns with their provider [$t(79) = 3.33, p < 0.001$], the provider is flexible with treatment options [$t(79) = 2.25, p = 0.001$], and the provider giving multiple treatment options [$t(79) = 2.89, p = 0.015$]. See Table 2 for additional details.

The differences indicate that women with a history of addressing menstrual concerns with their provider reported lower ratings for knowing the provider well, the provider knowing the

participant well, knowing what to expect with their provider, trusting their provider's judgements, the provider doing everything that they can for the participant's medical care, the provider respecting their beliefs, their sex/gender affecting their care, their beliefs affecting their care, and the provider caring about their issues. This indicates that women with a history of addressing their menstrual health concerns may be more likely to have poor experiences with providers than women that have not previously addressed their menstrual health concerns. On all other variables, women that had not addressed their menstrual concerns reported lower scores than those that had. This was especially true when responding to items accessing their experiences with their menstrual concerns, however, the participants responded more neutrally which is indicative of not addressing issues with their menstrual cycle. The pattern of responding demonstrates that women with menstrual health concerns may be discriminated against in a healthcare setting and even participants without concerns are not receiving care that fosters a positive patient-provider relationship, in turn affecting healthcare outcomes.

Men's Health Concerns and Perception of Providers

Male participants received a series of items assessing their experience with male sexual-health concerns and how those concerns were addressed with providers. Independent *t*-tests were conducted to determine if differences existed between participants reporting that they had ($n = 3$) or had not ($n = 10$) addressed sexual health concerns with their provider. Significant differences were found in the continuity of care [$t(11) = -1.43, p = 0.008$], trust in provider's advice [$t(11) = 0.622, p = 0.003$], trust in provider telling the participant the truth [$t(11) = -0.48, p = 0.003$], providers available that share the same race/ethnicity as the participant [$t(11) = -1.43, p = 0.028$], preference for providers that share the same race/ethnicity [$t(11) = -1.59, p = 0.009$], preference for providers that share the same sex/gender [$t(11) = -2.65, p = 0.008$], cooperation between the

provider and clinic staff [$t(11) = -2.26, p = 0.05$], provider appearing to be knowledgeable [$t(11) = 1.301, p < 0.001$], multiple treatment options given for general health concerns [$t(11) = 0.91, p = 0.038$], the effect of sexual history on care received [$t(11) = 1.04, p = 0.004$], the effect of beliefs on care received [$t(11) = 1.04, p = 0.004$], the provider listens and takes into considerations their specific needs when treating sexual health concerns [$t(11) = 1.93, p < 0.001$], the participants feel comfortable addressing sexual health concerns with providers [$t(11) = 1.19, p < 0.001$], the provider is flexible with treatment options for sexual health concerns [$t(11) = 1.16, p = 0.023$], and the provider gives multiple treatment options for sexual health concerns [$t(11) = 2.08, p = 0.004$]. See Table 3 for additional details.

The results of the t -tests indicate that differences in perception responses exist between men that have and have not addressed issues with sexual health in the sample. Men that had addressed sexual health concerns scored the following items lower than men that had not: trusting their provider to tell them the truth, their provider being an expert in their concerns, preferring a provider that shares their ethnicity, providers being available in their ethnic group, preferring a provider that shares their sex/gender, receiving a referral if needed, and experiencing cooperation between professionals in the clinic that they receive care from. The other significant items were responded to with higher levels of agreement by men that had addressed sexual health issues.

Although there was a small sample of males and an even smaller sample of males with sexual dysfunction, there were significant differences found between men that had or had not addressed sexual health concerns previously. Men that had addressed sexual health concerns expressed more issues with trust than those that had not and tended to prefer a provider that did not share their sex/gender. In contrast, men that had not addressed sexual health concerns felt

more uncomfortable addressing their concerns with providers and preferred providers that shared their sex/gender. These results indicate that men with sexual dysfunctions are more likely to experience poor interactions with their provider than men without sexual dysfunctions, especially if that provider is male and that trust is a concern for these men. These results should be interpreted with extreme caution given the small sample of male participants and the fact that there is not enough statistical power to make any solid claims.

Chronic Pain and Perception of Providers

Participants provided information regarding their history of chronic pain disorders, level of pain, and the extent to which this pain interfered with everyday activities. Independent sample *t*-tests were conducted to determine if differences existed between participants with ($n = 31$) and without ($n = 65$) chronic pain based on the TPS, PPDR, and PPIP. Significant differences were found in provider acceptance [$t(93) = -1.59, p = 0.05$], trust in provider to tell the participant if mistakes were made [$t(93) = -2.97, p = 0.017$], the provider prioritizes the patient's needs over other considerations [$t(93) = -1.22, p = 0.004$], trust in provider advice [$t(93) = -1.87, p = 0.044$], provider blaming the participant when issues with care arise [$t(92) = -1.38, p = 0.017$], provider not treating their issues as important [$t(92) = 1.87, p = 0.002$], provider acting as if they do not have time for the patient [$t(92) = 2.96, p < 0.001$], the effect of gender on care received [$t(92) = -1.64, p = 0.03$], and the effect of sexual orientation on care received [$t(92) = -1.97, p = 0.006$].

There were no statistically significant differences found with any of the other variables, though the provider exhibiting behaviors related to being uninterested in the participants' concerns [$t(92) = 1.90, p = 0.074$], the provider being an expert in their specific health concerns [$t(92) = -1.65, p = 0.094$], provider taking them seriously [$t(93) = -1.87, p = 0.065$], and the

participants' comfort with the provider [$t(93) = -2.32, p = 0.099$] were nearly at the 0.05 level. See Table 4 for additional details.

Overall, respondents with chronic pain were more likely to respond to each of the significant items with disagreement for positive items (e.g., I trust my provider to put my medical needs above all concerns) or agreement with negative items (e.g., my primary care provider blames me when things go wrong). Participants with chronic pain were less likely to endorse trust in providers and depth of relationship than participants without chronic pain. Interestingly, patients with chronic pain also reported more concerns that their sexual orientation and sex/gender affects the care they receive from providers. This could indicate that participants with chronic pain may feel more comfortable addressing concerns with a provider of the same sex/gender because they might be able to display greater levels of empathy. However, participants without chronic pain responded with more issues with the provider acting as if they do not have time for their concerns, blaming them when there are issues with their care, or being disinterested in their problems. Participants without chronic pain may experience more personal blame for issues or general disinterest because their concerns may not appear to be as prominent or important as those with chronic pain disorders.

Subsequent *t*-tests and correlation analyses for individual chronic pain disorders were conducted to determine if variance in responses existed dependent on the type of disorder and if a relationship existed between the disorder type and relationship quality with providers. Participants responded to items assessing if chronic pain disorders were present (e.g., endometriosis, fibromyalgia, etc.). Independent samples *t*-tests were conducted to determine if differences in perception, trust, and depth of relationship existed between the disorders. However, the number of participants with each disorder (e.g., fibromyalgia) were less than 2 per

disorder, making it is difficult to determine if any relationship exists between specific chronic pain disorders and perception of providers. Each of the analyses were non-significant.

Mental Health and Perception of Providers

Participants responded to a series of items assessing previous mental health concerns, diagnosed disorders, and experience addressing their mental health concerns with providers. Independent sample *t*-tests were conducted to determine if differences existed between participants with ($n = 53$) or without ($n = 33$) mental health disorders. Significant differences between the groups were found in: providers take the participant's needs into consideration [$t(84) = -1.90, p = 0.045$], distrust in their provider [$t(84) = 3.49, p = 0.049$], the provider prioritizes their needs over all other concerns [$t(84) = -2.08, p < 0.001$], trust in the provider to tell the participant if a mistake was made regarding their medical care [$t(84) = -2.59, p = 0.004$], trust in the provider to keep their information confidential [$t(84) = 2.32, p = 0.004$], providers that share the participants' race/ethnicity are available [$t(84) = 1.44, p = 0.017$], there are providers available that share the participant's sex/gender [$t(84) = 0.52, p = 0.042$], there is cooperation between the provider and staff [$t(84) = 1.16, p < 0.001$], the provider acknowledges the participant's concerns [$t(84) = -3.69, p = 0.002$], the provider appears knowledgeable [$t(84) = -2.61, p = 0.006$], the effect of race on care received [$t(84) = 0.84, p = 0.021$], the provider exhibiting behavior that makes the participant believe they do not have time for them [$t(84) = 3.15, p = 0.001$], the provider behaves as if they do not care about the participants' issues [$t(84) = 3.25, p = 0.018$], the provider behaves as if they do not listen to the participant [$t(84) = 2.99, p = 0.007$], the provider exhibiting behavior relating to being uninterested in the participants' concerns [$t(84) = 2.71, p = 0.001$], the provider does not listen when the participant asks for help [$t(84) = 2.59, p = 0.012$], the provider behaves as if the participants' issues are not important

$[t(84) = 3.15, p < 0.001]$, the provider exhibits anger-related behavior towards the participant $[t(84) = 1.15, p = 0.018]$, and the provider blames the participant when issues arise with their medical care $[t(84) = 2.56, p < 0.001]$. Other items that were significant at the 0.10 confidence level were provider acceptance of the participants $t(84) = -1.19, p = 0.092]$, trust in the provider's advice $t(84) = -2.19, p = 0.056]$, and explanation of treatment options to the participant $t(84) = -2.44, p = 0.054]$. See Table 5 for the means, standard deviations, mean differences, and p-values for the items above.

The results of the t -tests indicate that differences in perception of provider interactions differ between respondents with and without a mental health disorder. Individuals that reported having a mental health disorder were more likely to respond with agreement to negative items (e.g., my provider does not listen when I ask for help) and disagreement to positive items (e.g., I feel totally relaxed with this doctor). Exceptions to this are items related to clinic quality and provider availability. Participants without mental health disorders expressed, on average, more concerns with providers of their same sex or ethnicity being available, witnessing cooperation between providers and staff, and their provider appearing knowledgeable.

Over 30% of the sample reported having experienced mental health issues, demonstrating the pervasive nature of this disorder in the sample. This not only indicates the prevalence of mental health disorders but may speak to larger concerns with stigmatization in young adults. Participants with a mental health disorder expressed concerns with acceptance, comfort, need consideration, trust, and listening. These responses indicate that participants with a mental health disorder may be more likely to experience poor interactions with providers that damage the depth of relationship and trust in providers.

Similar to chronic pain disorders, independent samples *t*-tests and correlation analyses were conducted to evaluate the relationship between perception of interactions with providers and specific mental health disorders. These results were non-significant and there was not enough power to reject the null hypothesis. There were too few participants in each category of disorder to effectively evaluate the relationship between these two variables.

Qualitative Responses

It is important to note that, although there were statistically significant differences in patient-provider relationship quality ratings between the groups, most participants responded neutrally to most survey items. This pattern was not repeated in the qualitative results. 100 participants that responded to the open-ended qualitative survey questions. Of these, 22 respondents elaborated further about their history of interactions with medical providers and all 22 of these responses shared concerns about a current or previous medical provider. This was particularly true for some female participants that expressed repeatedly having issues addressing menstrual health concerns. For example, one woman in the sample stated that her provider “admitted to ignoring a referral because he thought [she] was being dramatic about [her] symptoms”. This response was one of many reporting being ignored, not listened to, and written off. In some cases, participants refused to see the same provider because of these concerns.

The lack of correspondence between the quantitative and qualitative responses may speak to the format of the questions in that they were framed towards a current provider, and since most participants expressed having a usual provider for six months or more (63%), it is likely that they were at least minimally satisfied with their care.

Discussion

Previous studies have evaluated how specific patient factors – such as trust, demographics, and diagnostic variables – affect the patient-provider relationship. The aim of this study was to address the paucity of research on young patients to evaluate differences in perception between demographic groups (especially men and women), those with and without chronic pain, those with and without a mental health disorder, and other demographic variables (e.g., race, SES, military affiliation, etc.).

On average, most participants responded neutrally to most positive items and disagreed tentatively with negative items. However, neutrality is not sufficient in the case of providing medical care. These ratings indicate that even though the participants had seen their provider for extended periods of time, a truly positive relationship was not being developed by providers as a whole. This speaks to the concept that providers are not given effective training in developing relationships with patients or educated in the importance of fostering them.

It is especially important to note that approximately 16% of the sample was not accessing healthcare due to poor prior experiences, inability to afford medical care, or a belief that medical care is unnecessary. Providers play an increasingly integral role in promoting systematic faith in the medical system. This study highlights the fact that past experiences are undoubtedly affecting individual's choices to no longer seek medical care that could be necessary for quality of life. Individuals should not be avoiding seeking care because providers are unable or unwilling to develop and foster an environment in which patients can comfortably address their medical concerns. Future research should focus on methods to train providers how to develop and maintain these important relationships with patients so that prior experience is another barrier removed from the healthcare system.

Significant differences between men and women were demonstrated, with women reporting generally poorer quality relationships with their providers, consistent with the results demonstrated in Hoffman and Tazian (2001). Although significant differences were found between the groups, it is important to note that the sample was primarily female. Thus, the findings based on male sample data should be interpreted cautiously. Since the differences were statistically significant, there was no statistical power due to the low level of male participation. This highlights the need for future research to explore differences in patient-provider relationship quality between men and women.

No significant differences in patients' perceptions of relationships with providers were found in comparing other demographic groups such as SES, military status, race/ethnicity, and religion. The lack of between-group differences may be due to demographic characteristics of the sample, as participants in this study were overwhelmingly white, Christian, and middle-income. It is difficult to ascertain any significant relationship between the different demographic variables considering the homogeneity of the sample. Future studies may aim to specifically recruit a more diverse subject pool to examine these variables in greater detail.

Differences in perception of relationships with providers existed between patients with and without chronic pain, consistent with findings from Jonsdottir et al. (2016). The small number of participants with chronic pain made it difficult to perform analyses that would encompass the relationship between these disorders and perceptions of providers. Given the number of participants with chronic pain expressing concerns with providers, it is important for future researchers to explore biases in the medical community against participants with these disorders.

Similarly, the small sample size of participants with sexual health disorders made it difficult to perform analyses that would encompass the relationship between these disorders and perceptions of providers. This is especially true for men and men with sexual health disorders. The need for a high-quality patient-provider relationship is exemplified with sexual health disorders; it may be difficult to approach a provider with concerns in this area if trust does not exist. If there are continued difficulties with receiving effective and empathetic treatment, patients could be less likely to seek medical attention for sex-specific concerns in the future, which could have long-lasting and wide-reaching impacts in many domains of the patient's quality of life (Akre et al., 2014). Considering the prevalence of sexual health disorders among the general population (Rafique et al., 2018; Akre et al., 2014), there is a great need for additional research in this area. Continued work in this area is necessary to understand if there is a relationship between the existence of these disorders, patient continuity, and interactions with providers.

This study evaluated the relationship between the existence of mental health disorders and perceptions of providers. Consistent with Vistorte et al. (2018), the differences in perception between participants with and without mental health disorders indicate that stigmas and bias may still be present in the primary care environment, regardless of international efforts to destigmatize mental health concerns. The inability to effectively assess the relationship between specific health disorders and the perception of provider interactions emphasizes another limitation of this study. Future research should further evaluate the impact of mental health diagnoses on the patient-provider relationship to better understand what measures need to be taken to improve the care individuals with mental health disorders receive.

It is also interesting to note the dichotomy between quantitative ratings and qualitative comments about the patient-provider relationship, particularly from women who shared detailed stories of repeatedly attempting having to address menstrual health concerns or significant dissatisfaction with previous providers. This contrast may highlight limitations of the current survey, as the quantitative rating questions were framed to request the participant rate their most current provider and there were no quantitative items assessing previous experiences with providers other than the one the participant is currently seeing. Since women were expressing multiple issues with addressing their concerns, it may be pertinent to explore the effect of provider history on current perceptions of providers.

The pattern of the qualitative responses suggests that dissatisfaction with patient-provider relationships can have long-lasting effects on the patient-provider relationship, even generalizing to future providers. Dennison et al. (2019) emphasizes the importance of considering past history when developing a new relationship with a patient because of the impact prior experiences have on current perceptions of providers. This is especially important in populations that have a history of discrimination in treatment settings. Women, non-white individuals, or those from a lower SES than their provider have all been empirically shown to experience disparities in treatment; future studies should examine ways to empirically evaluate the quality of these relationships and address treatment disparities.

Given that demographic variables have been demonstrated to influence the interactions providers have with patients and vice-versa, this may suggest an element of stimulus control is at play. Stimulus control is the phenomenon in which the presence or absence of a stimulus controls the occurrence or non-occurrence of a behavior (Cooper, Heron, & Heward, 2007). Demographic variables, such as gender or race, may serve as the stimulus controlling the behavior of health

care providers (Dennison et al., 2019). For example, a provider may learn during their training that female patients with a history of mental health disorders are more likely to report false symptoms, therefore increasing the probability that the provider will be more likely to interpret future female patients reporting symptoms of an undetected illness as suffering from an unrelated mental illness.

There has been a recent focus in remedying health care inequities in medical education programs. Trainings around understanding implicit biases have been included in recent curriculum and have improved awareness of these biases among individuals that attend these courses (Sabin, 2020). The first step in solving issues with bias affecting medical care is increasing awareness and continuing empirical research to understand how these biases are reflected in the patient-provider relationship.

Stimulus control may also extend to how patients interact with providers. A well-documented phenomenon known as *white-coat syndrome* occurs when patients' vital signs change in response to the presence or absence of the health care provider (Pioli et al., 2018). An example of this is "white coat hypertension," where the patient's blood pressure is higher when assessed in the doctor's office but low in other environments (stimulus discrimination). These results can occur even in the presence of a new provider with whom the patient has never worked with, evidence of the phenomenon of stimulus generalization (Cooper, Heron, & Heward, 2007). Taken together, providers must be mindful that patients may experience increased levels of anxiety or fear, even with new providers, if they have a history of inadequate or biased treatment from providers in the past.

Conclusion

The results of the study indicate that it is common even for patients to experience issues with providers. Of a particular note are the poorer patient-provider relationships among women, individuals with chronic pain, individuals with mental health disorders, and those with sexual health disorders. A history of inadequate provider treatment has the potential to adversely impact relationships with future providers, even if patients have not experienced discriminatory behaviors with a new provider (Dennison et al., 2019). The patient-provider relationship is dynamic and bidirectional, and a great deal of research is needed to identify populations at risk for degraded patient-provider relationships, as well as to evaluate methods to establish or remediate the patient-provider relationship to ensure effective, equal, and fair treatment in a medical setting.

References

- Akre, C., Berchtold, A., Gmel, G., & Suris, J.C. (2014). Evolution of sexual dysfunction in young men aged 18-25 years. *Journal of Adolescent Health, 55*(6), 736-743.
<https://doi.org/10.1016/j.jadohealth.2014.05.014>
- Anderson, L.A., & Dedrick, R.F. (1990). Development of the trust in physician scale: A measure to assess interpersonal trust in patient-physician relationships. *Psychological Reports, 67*(3), 1091-1100. <https://doi.org/10.2466%2Fpr0.1990.67.3f.1091>
- Babitsch, B., Braun, T., Borde, & David, M. (2008). Doctor's perception of doctor-patient relationships in emergency departments: What roles do gender and ethnicity play? *BMC Health Services Research, 11*(8), 82. <https://doi.org/10.1186/1472-6963-8-82>
- Beach, M.C., Keruly, J., & Moore, R.D. (2006). Is the quality of the patient-provider relationship associated with better adherence and health outcomes for patients with HIV? *Journal of General Internal Medicine, 21*(6), 661-665. <https://doi.org/10.1111/j.1525-1497.2006.00399.x>
- Chen, E.H., Shofer, F.S., Dean, A.J., Hollander, J.E., Baxt, W.G., Robey, J.L., Sease, K.L., & Mills, A.M. (2008). Gender disparity in analgesic treatment of emergency department patients with acute abdominal pain. *Academy of Emergency Medicine, 15*(5), 414-418. <https://doi.org/10.1111/j.1553-2712.2008.00100.x>
- Cooper, J.O., Heron, T.E., & Heward, W.L (2007). *Applied Behavior Analysis*. Upper Saddle River, New Jersey: Pearson.
- Dennison, A., Lund, E. M., Brodhead, M. T., Mejia, L., Armenta, A., & Leal, J. (2019). Delivering home-supported applied behavior analysis therapies to culturally and

- linguistically diverse families. *Behavior Analysis in Practice*, 12(4), 887–898.
<https://doi.org/10.1007/s40617-019-00374-1>
- Dixon, D., Pollard, P., & Johnston, M. (2007). What does the chronic pain questionnaire measure? *Pain*, 130(3), 249-253. <https://doi.org/10.1016/j.pain.2006.12.004>
- Elliot, M.N., Lehrman, W.G., Beckett, M.K., Goldstein, E., Hambarsoomian, K., & Giordano, L.A. (2012). Gender differences in patients' perceptions of inpatient care. *Health Services Research*, 47(4). <https://doi.org/10.1111/j.1475-6773.2012.01389.x>
- Foss, C. (2002). Gender bias in nursing care? Gender-related differences in patient satisfaction with the quality of nursing care. *Scandinavian Journal of Caring Sciences*, 16(1), 19-26.
<https://doi.org/10.1046/j.1471-6712.2002.00045.x>
- Hall, M.A., Dungan, E., Zheng, B., & Mishra, A.K. (2001). Trust in physicians and medical institutions: what is it, can it be measured, and does it matter? *The Milbank Quarterly*, 79(4), 613-639. <https://doi.org/10.1111/1468-0009.00223>
- Hoffman, D.E., & Tarzian, A.J. (2001). The girl who cried pain: A bias against women in the treatment of pain. *Journal of Law, Medicine, & Ethics*, 29, 13-27. <https://doi.org/10.1111/j.1748-720X.2001.tb00037.x>
- Jerant, A., Bertakis, K.D., Fenton, J.J., Tancredi, D.J., & Franks, P. (2011). Patient-provider sex and race/ethnicity concordance: A national study of healthcare and outcomes. *Medical Care*, 49(11), 1012-1020. <https://doi.org/10.1097/MLR.0b013e31823688ee>
- Jonsdottir, T., Gunnarsdottir, S., Oskarsson, G.K., & Jonsdottir, H. (2016). Patients' perceptions of chronic pain related patient-provider communication in relation to sociodemographic

- and pain-related variables: A cross-sectional nationwide study. *American Society for Pain Management Nursing*, 17(5), 322-332. <https://doi.org/10.1016/j.pmn.2016.07.001>
- Laumann, E.O., Paik, A., & Rosen, R.C. (1999). Sexual dysfunction in the United States: prevalence and predictors. *Journal of the American Medical Association*, 281(6). <https://doi.org/10.1001/jama.281.6.537>
- Meghani, S.H., Byun, E., & Gallagher, R.M. (2012). Time to take stock: A meta-analysis and systematic review of analgesic treatment disparities for pain in the United States. *Pain Medicine*, 13(2), 150-174. <https://doi.org/10.1111/j.1526-4637.2011.01310.x>
- Marchand, K., Palis, H., & Oveido-Joekes, E. (2016). Patient perceptions of prejudice and discrimination by health-care providers and its relationship with mental disorders: Results from the 2012 Canadian community health-mental health survey data. *Community Mental Health Journal*, 52(3), 294-301. <https://doi.org/10.1007/s10597-015-9949-2>
- Merriel, S.W., Salisbury, C., Metcalfe, C., & Ridd, M.J. (2015). Depth of the patient-doctor relationship and content of general practice consultations: Cross-sectional study. *The British Journal of General Practice*, 65(637), e545-551. <https://doi.org/10.3399/bjgp15X686125>.
- Noy, C. (2006). Sampling knowledge: The hermeneutics of snowball sampling in qualitative research. *International Journal of Social Research Methodology*, 11(4), 327-344. <https://doi.org/10.1080/13645570701401305>
- Pioli, M.R., Ritter, A.M.V., de Faria, A.P., & Modolo, R. (2018). White coat syndrome and its variations: Differences and clinical impact. *Integrated Blood Pressure Control*, 2018(11), 73-79. <https://doi.org/10.2147/IBPC.S152761>

Rafique, N., & Al-Sheikh, M.H. (2018). Prevalence of menstrual problems and their association with psychological stress in young female students studying health sciences. *Saudi Medical Journal*, 39(1), 67-73. <https://doi.org/10.15537/smj.2018.1.21438>.

Ridd, M.J., Lewis, G., Peters, T.J., & Salisbury, C. (2011). Patient-doctor depth of relationship scale: Development and validation. *Annals of Family Medicine*, 9(6), 538-545. <https://doi.org/10.1370/afm.1322>

Rosen, R.C. (2000). Prevalence and risk factors of sexual dysfunction in men and women. *Current Psychiatry Reports*, 2, 189-195. <https://doi.org/10.1007/s11920-996-0006-2>

Wallace, L.S., DeVoeblan, J.E., Bennet, I.M., Roskos, S.E., Fryer, G.E. (2008). Perceptions of healthcare providers' communication skills: Do they differ between urban and non-urban residents? *Health Place*, 14(4), 653-660. <https://doi.org/10.1016/j.healthplace.2007.10.010>

Wittchen, H.U., Muhlig, S., Beesdo, K. (2003). Mental disorders in primary care. *Dialogues in Clinical Neuroscience*, 5(2), 115-128. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3181625/>

Weismann, C.S., Rich, D.E., Rodgers, J., Crawford, K., Grayson, C.E., & Henderson, J.T. (2004). Gender and patient satisfaction with primary care: Tuning in to women in quality measurement. *Journal of Women's Health & Gender-Based Medicine*, 9(7), 657-665. <https://doi.org/10.1089/15246090050118189>

PATIENT PERCEPTIONS

38

Table 1*Sex/Gender and Patient-Provider Interactions*

Item	Male Participant Responses			Female Participant Responses			Mean Difference	P-Value
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Depth of Relationship								
I have a provider that I usually see.	13	1.46	0.78	81	1.17	0.41	-0.29	<i>P</i> < 0.001***
My provider takes me seriously.	13	3.92	1.04	81	3.9	1.33	-0.02	0.057
Trust in Physicians Scale								
I trust my doctor so much I always try to follow his/her advice.	14	4.14	0.53	82	3.72	1.02	-0.42	0.009**
I sometimes distrust my doctor’s opinion and would like a second.	14	2.57	0.76	82	2.83	1.15	0.26	0.06
Perception Items								
My sexual orientation does not affect the care I receive from my primary care provider.	14	4.86	0.36	82	4.15	1.46	-0.71	0.010**
My sex/gender does not affect the care I receive from my primary care provider.	14	4.86	0.36	82	4.23	1.16	-0.63	0.006**
My sexual history does not affect the care I receive from my primary care provider.	14	4.79	0.43	82	4.2	1.26	-0.59	0.026**
My beliefs do not affect the care I receive from my primary care provider.	14	4.71	0.47	82	4.22	1.28	-0.49	0.064
My primary care provider blames me when things go wrong.	14	1.27	0.43	82	1.35	0.67	0.14	0.067

Note. Values in Table 1 display the *t*-test results to compare means between males and females in the sample. *** indicates *p*-values less than 0.001, ** indicates values less than 0.01, * indicates *p*-values less than 0.05, and no asterisk indicates *p*-values greater than 0.05.

Table 2*Women's Health and Perceptions of Provider Interactions*

Item	Addressed Menstrual Concerns			Menstrual Concerns Not Addressed			Mean Difference	P-Value
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Depth of Relationship								
I know this doctor very well.	46	2.77	1.55	35	2.78	1.28	0.01	0.036**
This doctor knows me as a person.	46	2.89	1.6	35	2.76	1.25	-0.12	0.025**
I know what to expect with this doctor	46	3.37	1.55	35	3.72	1.22	0.35	0.015**
This doctor really cares for me.	46	3.48	1.22	35	3.46	1.44	0.02	0.056
This doctor takes me seriously.	46	4	1.15	35	3.77	1.54	0.23	0.019**
Trust in Physicians Scale								
I doubt that my doctor really cares about me as a person.	46	2.04	1.09	35	2.17	1.22	-0.13	0.089
I trust my doctor's judgments about my medical care.	46	3.19	0.72	35	3.69	1.05	0.23	0.009***
I feel my doctor does not do everything he/she should for my medical care.	46	2	0.97	35	2.37	1.29	-0.37	0.002***
I trust my doctor to tell me if a mistake was made about my treatment.	46	3.19	1.28	35	3.89	0.96	-0.70	0.017**
Perception Items								
I feel involved in decision making about my medical care.	46	4.04	1.06	35	3.63	1.4	0.41	0.004***
My primary care provider remembers and understands my medical history.	46	3.78	1.23	35	3.29	1.53	0.50	0.023***
I would prefer a primary care provider that shares my ethnicity.	46	3.38	1.38	35	2.89	1.49	-0.25	0.053
There is a lot of cooperation between my primary care provider and the staff that work with them.	46	4.07	1.16	35	3.6	1.48	0.47	0.077

PATIENT PERCEPTIONS

40

My primary care provider respects my beliefs.	46	3.76	1.65	35	4	1.26	-0.29	0.088
My sex/gender does not affect the care I receive from my primary care provider.	46	4.13	1.31	35	4.29	0.99	-0.16	0.079
My beliefs do not affect the care I receive from my primary care provider.	46	4.11	1.48	35	4.31	0.96	-0.21	0.048**
I feel that my primary care provider acts like they don't want to hear about my problems.	46	1.67	0.84	35	1.83	0.84	-0.15	0.067
I feel that my primary care provider doesn't listen when I ask for help.	46	1.72	0.96	35	1.94	1.33	-0.23	0.032**
Experiences Addressing Women's Health Concerns								
My primary care provider understands my menstrual-related issues.	46	5.53	1.67	35	3.71	2.52	1.72	$P < 0.001$ ***
My primary care provider listens to and takes into account what I need to control my menstrual-related symptoms.	46	5.59	1.61	35	3.29	2.66	2.29	$P < 0.001$ ***
I feel that I can talk to my primary care provider about my menstrual cycle and/or issues with my menstrual cycle.	46	6	1.32	35	4.66	2.29	1.34	$P < 0.001$ ***
My primary care provider is flexible with the types of birth control they prescribe and is willing to prescribe what I want.	46	5.46	1.88	35	4.29	2.79	1.17	$P < 0.001$ ***
My primary care provider gives me multiple treatment options to address my menstrual-related problems and explains the risks in a way that I can understand.	46	5.52	2	35	4	2.73	1.53	0.015**

Note. Values in Table 2 display the *t*-test results to compare means between females that have or have not addressed menstrual concerns in the sample. *** indicates *p*-values less than 0.001, ** indicates values less than 0.01, * indicates *p*-values less than 0.05, and no asterisk indicates *p*-values greater than 0.05.

PATIENT PERCEPTIONS

41

Table 3*Men's Health and Perceptions of Provider Interactions*

Item	Have Addressed Sexual Health Concerns			Have Not Addressed Sexual Health Concerns				
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	Mean Difference	<i>P</i> -Value
Depth of Relationship								
Do you have a primary care provider that you usually see?	3	1	0	10	1.7	0.82	-0.7	<i>P</i> < 0.001***
I feel totally relaxed with this doctor.	3	4	0	9	3.7778	1.3	0.22	0.073
Trust in Physicians Scale								
I trust my doctor so much I always try to follow his/her advice.	3	4.3333	1.155	9	4.1	0.32	0.23	0.003**
If my doctor tells me something is so, then it must be true.	3	3	1.732	10	3.3	0.67	-0.30	0.011*
My doctor is a real expert in taking care of problems like mine.	3	3.667	1.075	10	3.8	1.53	-0.13	0.058
I trust my doctor to tell me if a mistake was made about my treatment.	3	5	0	10	4.3	0.95	0.70	0.074
I sometimes worry that my doctor may not keep the information we discuss totally private.	3	2	1.732	10	1.5	0.85	0.50	0.058
Perception Items								
I would prefer a primary care provider that shares my ethnicity.	3	1	0	10	2.1111	1.17	-1.11	<i>P</i> < 0.001***
There are primary care providers available in my ethnic group.	3	3	2.646	10	4.4	1.07	-1.40	0.028*
There are primary care providers available that share the same sex/gender as me.	3	4.667	0.577	10	3.7	1.95	0.97	0.059

PATIENT PERCEPTIONS

42

I would prefer a primary care provider that shares the same sex/gender as me.	3	1	0	10	2.3	0.82	-1.30	$P < 0.001^{***}$
I can get a referral to a specialist if I need it.	3	2.3333	2.082	10	4.3	0.95	-1.97	0.07
There is a lot of cooperation between my primary care provider and the staff that work with them.	3	2.3333	2.082	10	4.1	0.88	-1.77	0.05
My primary care provider appears knowledgeable.	3	5	0	10	4.6	0.52	0.40	$P < 0.001^{***}$
My primary care provider gives me multiple treatment options to choose from.	3	4	1	10	3.2	1.48	0.80	0.038*
My sexual orientation does not affect the care I receive from my primary care provider.	3	5	0	10	4.8	0.42	0.20	0.057
My sex/gender does not affect the care I receive from my primary care provider.	3	5	0	10	4.8	0.42	0.20	0.057
My sexual history does not affect the care I receive from my primary care provider.	3	5	0	10	4.7	0.48	0.30	0.004***
My beliefs do not affect the care I receive from my primary care provider.	3	5	0	10	4.7	0.48	0.30	$P < 0.001^{***}$
My race/ethnicity does not affect the care I receive from my primary care provider.	3	5	0	10	4.8	0.43	0.20	0.057
Experiences Addressing Men's Health Concerns								
My primary care provider listens to and takes into account what I need to address my sexual health concerns.	3	6	0	10	2.4	3.13	3.60	$P < 0.001^{***}$
I feel that I can talk to my primary care provider about my sexual health and/or issues with my sexual health.	3	6.3333	0.577	10	3.9	3.41	2.43	$P < 0.001^{***}$
My primary care provider is flexible with the treatments they are willing to prescribe and is willing to prescribe what I want.	3	5	1.732	10	2.8	3.08	2.2	0.023*

PATIENT PERCEPTIONS

43

My primary care provider gives me multiple treatment options for my sexual health issues and explains the risks in a way that I understand.	3	6	0	10	2	0.32	4	0.004**
---	---	---	---	----	---	------	---	---------

Note. Values in Table 3 displays the *t*-test results to compare means between males that have or have not addressed sexual health concerns in the sample. *** indicates *p*-values less than 0.001, ** indicates values less than 0.01, * indicates *p*-values less than 0.05, and no asterisk indicates *p*-values greater than 0.05.

PATIENT PERCEPTIONS

44

Table 4*Chronic Pain and Perceptions of Provider Interactions*

Item	With Chronic Pain			Without Chronic Pain			Mean Difference	P-Value
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Depth of Relationship								
My provider takes me seriously.	31	3.52	1.48	64	4.05	0.15	-0.29	0.065
This doctor accepts me the way I am.	31	3.65	1.38	64	4.05	1.1	-0.42	0.05*
I feel totally relaxed with this doctor.	31	3.26	1.39	64	3.89	1.7	-0.63	0.099
Trust in Physicians Scale								
I trust my doctor so much I always try to follow his/her advice.	31	3.42	1.12	64	3.83	0.94	-0.41	0.044**
I trust my doctor to put my medical needs above all other considerations when treating my medical problems.	31	3.42	1.18	64	3.7	0.81	-0.25	<i>P</i> < 0.01***
My doctor is a real expert in taking care of problems like mine.	31	3.26	1.21	64	3.64	0.98	-0.38	0.094
I trust my doctor to tell me if a mistake was made about my treatment.	31	3.19	1.28	64	3.89	0.96	-0.70	0.017*
Perception Items								
My sexual orientation does not affect the care I receive from my primary care provider.	31	3.77	1.8	63	4.38	1.17	-0.61	0.006**
My sex/gender does not affect the care I receive from my primary care provider.	31	3.94	1.44	63	4.37	1.05	-0.50	0.030*
I feel that my primary care provider acts like they don't have time for me.	31	2.52	1.43	63	2	0.98	0.72	<i>P</i> < 0.01***
I feel that my primary care provider acts like they can't be bothered by me or my problems.	31	2	1.15	63	1.6	0.83	0.40	0.074

PATIENT PERCEPTIONS

45

I feel that my primary care provider acts like my problems aren't that important, could be worse, or doesn't require any attention.	31	2.16	1.44	63	1.7	0.94	0.46	0.002***
My primary care provider blames me when things go wrong.	31	1.68	0.98	63	1.43	0.73	0.25	0.017**

Note. Values in Table 4 display the t-test results to compare means between participants with or without chronic pain in the sample. *** indicates p-values less than 0.001, ** indicates values less than 0.01, * indicates p-values less than 0.05, and no asterisk indicates p-values greater than 0.05.

PATIENT PERCEPTIONS

46

Table 5*Mental Health and Perceptions of Provider Interactions*

Item	With a Mental Health Disorder			Without a Mental Health Disorder			Mean Difference	P-Value
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Depth of Relationship								
This doctor accepts me the way I am.	53	3.87	1.3	33	4.18	0.98	-0.31	0.092
I feel totally relaxed with this doctor.	53	3.51	1.3	33	4.09	1.07	-0.58	0.071
Trust in Physicians Scale								
My doctor is usually considerate of my needs and puts them first.	53	3.75	0.94	33	4.12	0.74	-0.37	0.045**
I trust my doctor so much I always try to follow his/her advice.	53	3.58	1.05	33	4.06	0.86	-0.48	0.056
I sometimes distrust my doctor's opinion and would like a second.	53	3.11	1.14	33	2.3	0.88	0.81	0.049
I trust my doctor to put my medical needs above all other considerations when treating my medical problems.	53	3.51	1.07	33	3.94	0.66	-0.43	<i>P</i> < 0.001***
I trust my doctor to tell me if a mistake was made about my treatment.	53	3.51	1.2	33	4.12	0.78	-0.61	0.004**
I sometimes worry that my doctor may not keep the information we discuss totally private.	53	2	1.22	33	1.45	0.71	0.55	0.004**
Perception Items								
There are primary care providers available in my ethnic group.								

PATIENT PERCEPTIONS

47

There are primary care providers available that share the same sex/gender as me.	53	4.86	0.36	33	4.15	1.46	-0.71	$P < 0.001^{***}$
There is a lot of cooperation between my primary care provider and the staff that work with them.	53	4.86	0.36	33	4.23	1.16	0.31	0.006**
My primary care provider listens to and acknowledges my concerns.	53	4.79	0.43	33	4.2	1.26	-0.75	0.002**
My primary care provider appears knowledgeable.	53	4.71	0.47	33	4.22	1.28	-0.36	0.006**
My race/ethnicity does not affect the care I receive from my primary care provider.	53	4.42	0.93	33	4.18	1.65	0.23	0.021*
I feel that my primary care provider acts like they don't have time for me.	53	2.32	1.27	33	1.55	0.79	0.78	0.001**
I feel that my primary care provider acts like they don't care about me.	53	1.94	0.99	33	1.33	0.54	0.61	0.018*
I feel that my primary care provider acts like they don't want to hear about my problems.	53	1.92	1.05	33	1.33	0.54	0.59	0.007**
I feel that my primary care provider acts like they can't be bothered by me or my problems.	53	1.91	1.08	33	1.36	0.49	0.54	0.001***
I feel that my primary care provider doesn't listen when I ask for help.	53	1.94	1.1	33	1.39	0.66	0.55	0.012**
I feel that my primary care provider acts like my problems aren't that important, could be worse, or doesn't require any attention.	53	2.04	1.21	33	1.33	0.54	0.70	$P < 0.001^{***}$
My primary care provider acts in an angry way towards me.	53	1.4	0.69	33	1.24	0.44	0.15	0.018**
My primary care provider blames me when things go wrong.	53	1.62	0.86	33	1.21	0.42	0.41	$P < 0.001^{***}$

PATIENT PERCEPTIONS

Note. Values in Table 5 display the t-test results to compare means between participants with or without a mental health disorder in the sample. *** indicates p-values less than 0.001, ** indicates values less than 0.01, * indicates p-values less than 0.05, and no asterisk indicates p-values greater than 0.05.

Figure 1.
Bar Graph Depicting the sex/gender frequencies of the participants.

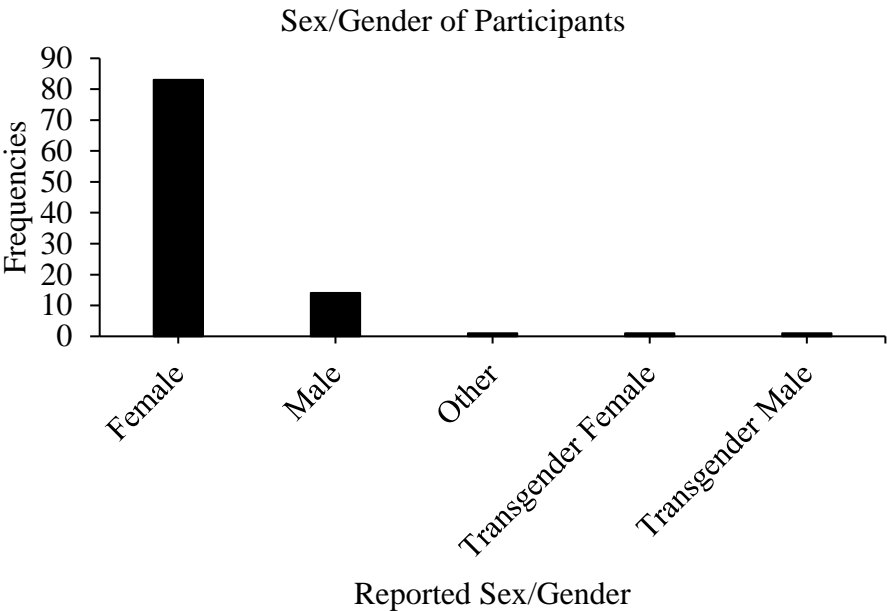


Figure 2.
Bar graph depicting the race/ethnicity frequencies of participants.

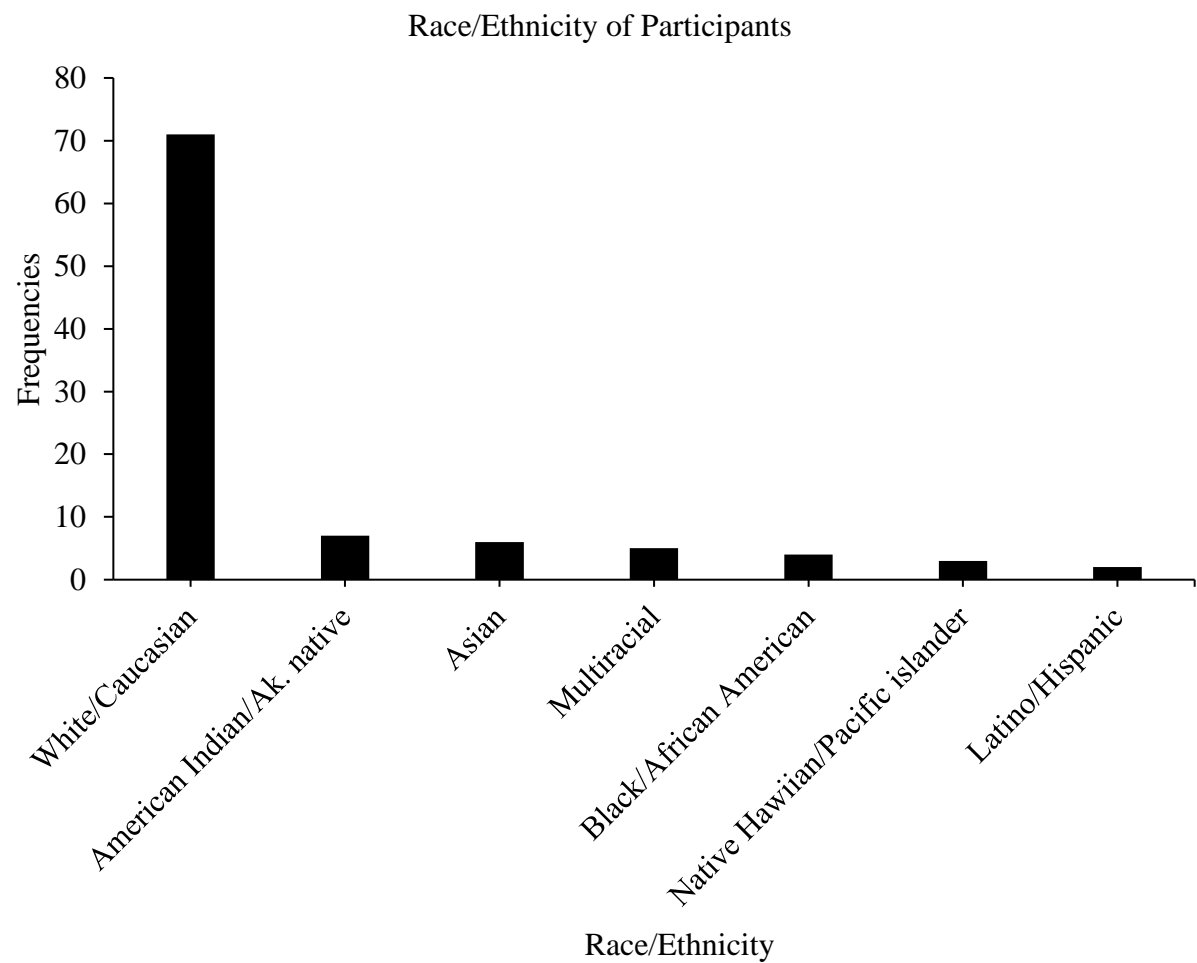


Figure 3.
Bar graph depicting the income frequencies of participants.

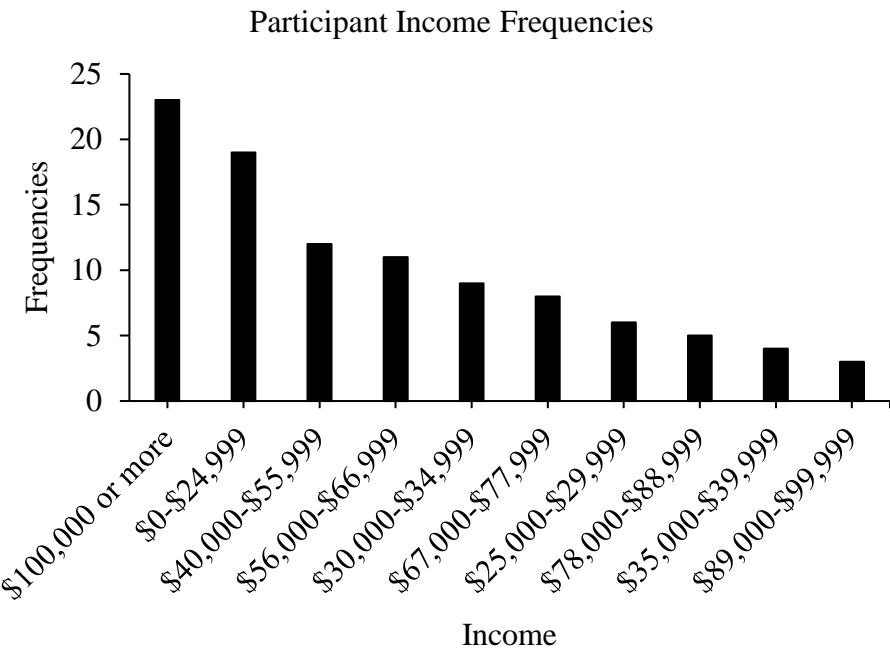


Figure 4.
Bar graph depicting the military status frequencies of participants.

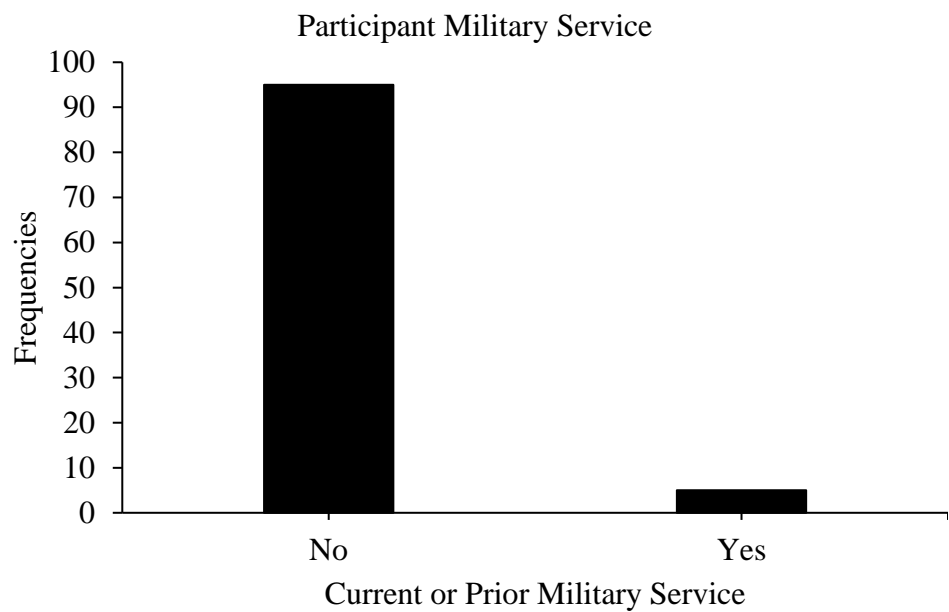


Figure 5.
Bar graph depicting the religion frequencies of participants.

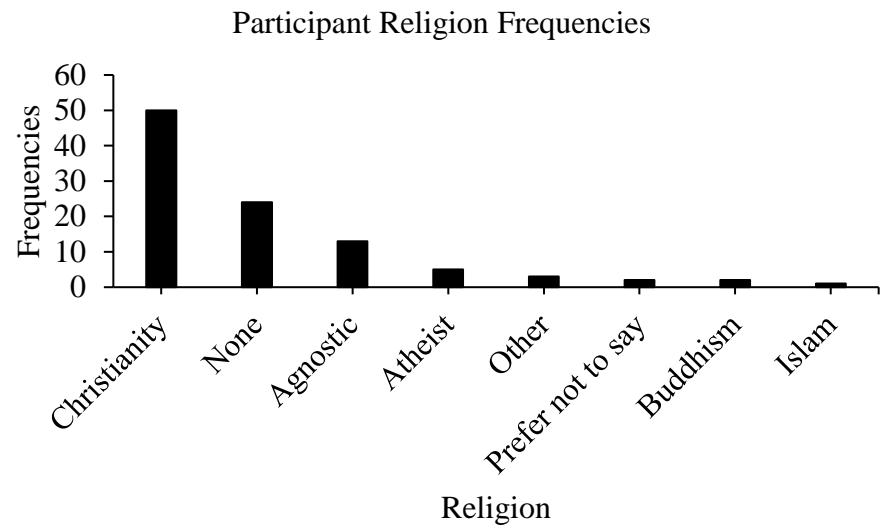


Figure 6.
Bar graph depicting the relationship status frequencies of participants.

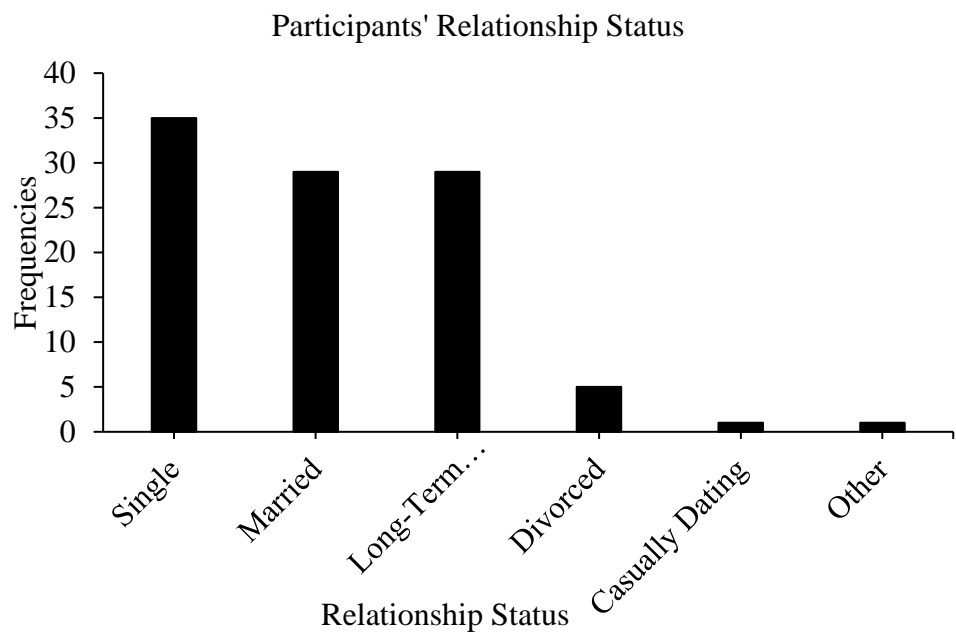


Figure 7.
Bar graph depicting the geographic location frequencies of participants.

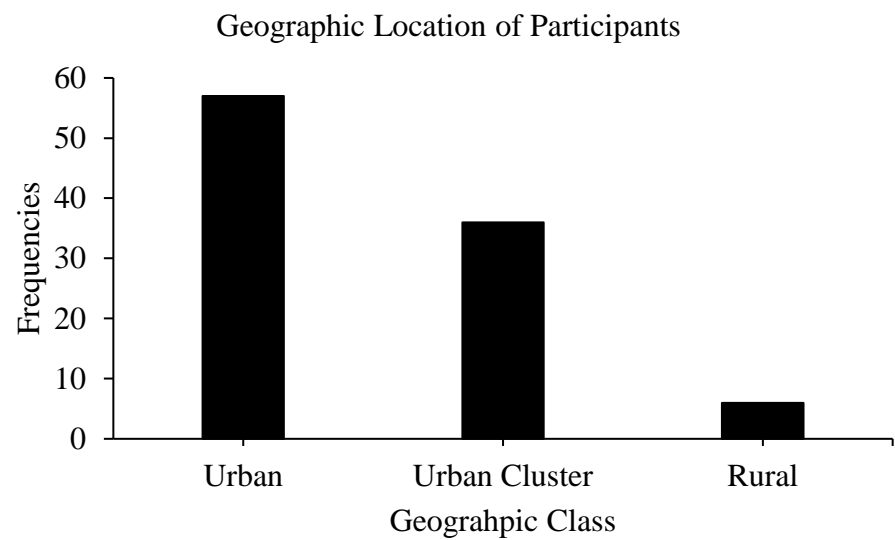


Figure 8.
Bar graph depicting the age frequencies of participants.

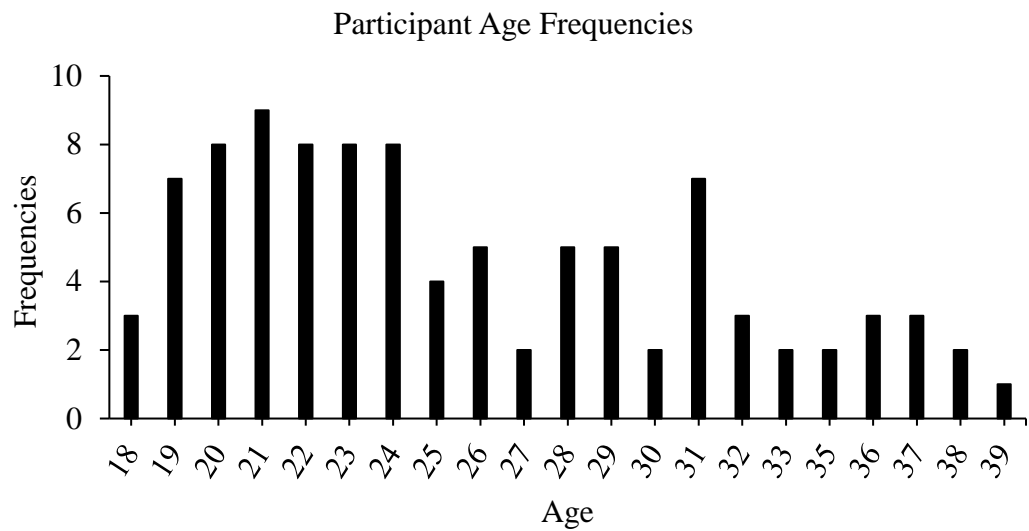
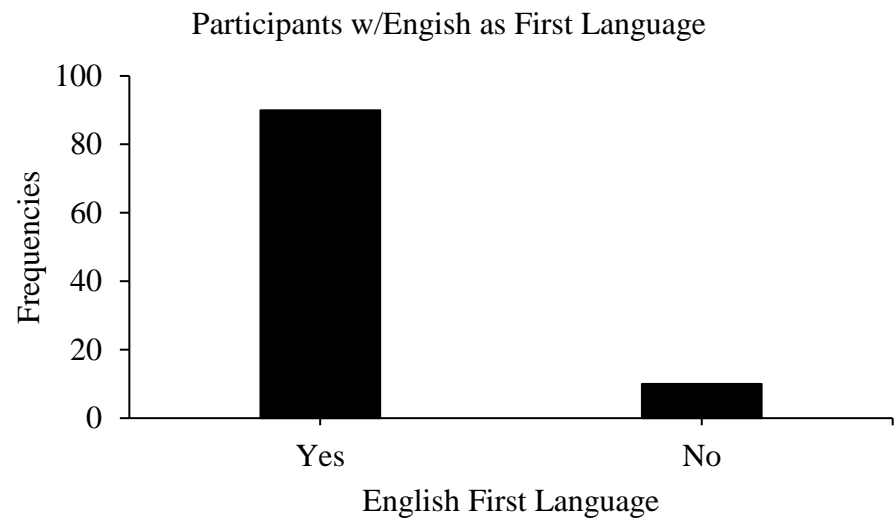


Figure 9.
Bar graph depicting the first language frequencies of participants.



Appendix A

Young Adult Perceptions of Patient-Provider Interactions in Primary Care Survey

Section 1: Demographics

1. What is your sex/gender?
 - a. Female
 - b. Male
 - c. Transgender female
 - d. Transgender male
 - e. Other: _____

2. Where did you find this survey?
 - a. UAA Research Portal
 - b. Facebook
 - c. Twitter
 - d. Instagram
 - e. Sent to me by a friend/family member
 - f. Other: _____

3. What is your religion?
 - a. Christianity
 - b. Islam
 - c. Hinduism
 - d. Buddhism
 - e. Sikhism
 - f. Judaism
 - g. Agnostic
 - h. Atheist

PATIENT PERCEPTIONS

59

i. None

j. Other: _____

k. Prefer not to say

4. What is your age (in years)?

5. What is your race/ethnicity?

- a. American Indian or Alaska Native
- b. Asian
- c. Black or African American
- d. Indigenous or Aboriginal Person (not from the United States)
- e. Latino/Hispanic
- f. Native Hawaiian or Pacific Islander
- g. Multiracial
- h. White or Caucasian
- i. Other: _____

6. Please select your relationship status.

- a. Single
- b. Married
- c. In a long-term relationship (six-months or more)
- d. Casually dating
- e. Divorced
- f. Other: _____

7. How would you classify the geographic area where you reside?

- a. Rural (2,500 residents or fewer)
- b. Urban (more than 50,000 residents)
- c. Urban cluster (2,500-50,000 residents)

PATIENT PERCEPTIONS

60

8. What country, state, and/or province do you currently live in?

9. Is English your first language?

a. Yes

b. No

10. If you selected “no” as a response to the above question, please enter your first language(s) below.

11. Please select your best estimate of your household’s current income range. If you are living with your parent(s) or caregiver(s), please use your best estimate of a combination of you and your parent/caregiver’s income.

a. \$0-\$24,999

b. \$25,000-\$29,999

c. \$30,000-\$34,999

b. \$35,000-\$39,999

c. \$40,000-\$55,999

d. \$56,000-\$66,999

e. \$67,000-\$77,999

f. \$78,000-\$88,999

g. \$89,000-\$99,999

h. \$100,000 or more

12. Are you currently serving or have you ever served on Active Duty/Guard/Reserve in any branches of the United States Military?

a. Yes

b. No

PATIENT PERCEPTIONS

61

13. Are you a spouse or child of an Active Duty/Guard/Reserve Member of any of the United States Military branches?

- a. Yes
- b. No

14. If you, your spouse, or your parent(s) are no longer in the Military, do you still receive healthcare funded through the VA/DoD?

- a. Yes
- b. No

Section 2: Patient History

The following questions are general questions about your past and current medical care.

15. Please select all the statements that apply to your primary care provider(s) and medical care.

- a. I have been seeing the same primary care provider for six months or more.
- b. I have been seeing multiple primary care providers in the same clinic for six months or more.
- c. I have seen more than one primary care provider at different clinics in the past six months due to relocation.
- d. I have seen more than one primary care provider in the past six months because I did not like the care I received where I used to go.
- e. I do not seek medical attention because I cannot afford it and/or do not have insurance.
- f. I do not seek medical attention because of bad experiences I have had with primary care providers and/or their staff in the past.
- g. I do not seek medical attention because I feel that I do not need it.

16. Do you feel that you are getting/have gotten the care that you need from your current or past primary care provider(s)?

PATIENT PERCEPTIONS

62

- a. Yes
- b. No
- c. I do not have a primary care provider or a place that I seek medical care from

17. What is the sex/gender of your current primary care provider?

- a. Female
- b. Male
- c. Transgender Female
- d. Transgender Male
- e. Other _____
- f. Unsure
- g. Does not apply

18. What is the race/ethnicity of your primary care provider?

- a. White or Caucasian
- b. Black or African American
- c. American Indian or Alaska Native
- d. Asian
- e. Native Hawaiian or Pacific Islander
- f. Latino/Hispanic
- g. Multiracial
- h. Other _____
- i. Unsure
- j. Does not apply

19. To the best of your knowledge, please select what degree your primary care provider holds:

- a. Medical Doctor
- b. Physician's Assistant

PATIENT PERCEPTIONS

63

- c. Nurse Practitioner
- d. Doctor of Osteopathic Medicine
- e. Unsure

20. Are you aware of the options available to you where you can receive effective, affordable, respectful healthcare?

- a. Yes
- b. No
- c. I do not have options where I can receive healthcare that meets the above criteria.
- d. I do not need medical care

21. Please use the space to describe what is important to you when it comes to your healthcare provider.

Section 3: Patient-Doctor Depth of Relationship

For the following questions, please think of the primary care provider that you see most often. Although “doctor” and “primary care provider” are used, please continue responding as honestly as you can even if your primary care provider is not a medical doctor.

22. Do you have a primary care provider that you usually see?³

- a. Yes
- b. No
- c. Not sure

23. Thinking about your primary care provider, please answer the following questions as honestly as possible by ticking the box that best fits with your opinion.

RESPONSE SCALE: disagree, neither agree nor disagree, slightly agree, mostly agree, totally agree³.

- a. I know this doctor very well.
- b. This doctor knows me as a person.

PATIENT PERCEPTIONS

64

- c. This doctor really knows how I feel about things.
- d. I know what to expect with this doctor.
- e. This doctor really cares for me.
- f. This doctor takes me seriously.
- g. This doctor accepts me the way I am.
- h. I feel totally relaxed with this doctor.

Section 4: Trust in Physician's Scale

24. Below are some statements referring to your primary care provider. Please rate how much you agree or disagree with each statement. Response choices range from "strongly disagree" to "strongly agree"¹.

RESPONSE SCALE: Strongly disagree, disagree, neutral, agree, strongly agree

- a. I doubt that my doctor really cares about me as a person.
- b. My doctor is usually considerate of my needs and puts them first.
- c. I trust my doctor so much I always try to follow his/her advice.
- d. If my doctor tells me something is so, then it must be true.
- e. I sometimes distrust my doctor's opinion and would like a second.
- f. I trust my doctor's judgments about my medical care.
- g. I feel my doctor does not do everything he/she should for my medical care.
- h. I trust my doctor to put my medical needs above all other considerations when treating my medical problems.
- i. My doctor is a real expert in taking care of problems like mine.
- j. I trust my doctor to tell me if a mistake was made about my treatment.
- k. I sometimes worry that my doctor may not keep the information we discuss totally private.

25. Comments¹:

Section 5: Participant Perception of Interactions with Providers 26. Please rate your agreement or disagreement with the following statements regarding your experiences with your past and/or present medical care.

RESPONSE SCALE: strongly disagree, disagree, neither agree nor disagree, agree, strongly agree, does not apply to me.

- a. I feel involved in decision making about my medical care.

PATIENT PERCEPTIONS

65

- b. There is space available in my primary care provider's office where I can discuss things privately with them or other staff.
- c. My primary care provider remembers and understands my medical history.
- d. There are primary care providers available in my ethnic group.
- e. I would prefer a primary care provider that shares my ethnicity.
- f. There are primary care providers available that share the same sex/gender as me.
- g. I would prefer a primary care provider that shares the same sex/gender as me.
- h. I can choose what primary care provider I want to see.
- i. I can get a referral to a specialist if I need it.
- j. My primary care provider provides me with sufficient information regarding hospital/specialist care.
- k. There is a lot of cooperation between my primary care provider and the staff that work with them.

27. Please rate your agreement or disagreement with the following statements regarding your experiences with your primary care provider(s).

RESPONSE SCALE: Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree, does not apply to me.

- a. My primary care provider answers all of my questions and uses language that I can understand.
- b. My primary care provider explains my diagnoses to me thoroughly.
- c. My primary care provider listens to and acknowledges my concerns.
- d. My primary care provider appears knowledgeable.
- e. My primary care provider gives me multiple treatment options to choose from.
- f. My primary care provider respects my beliefs.
- g. My primary care provider takes my beliefs into consideration when finding treatment options.
- h. My sexual orientation does not affect the care I receive from my primary care provider.
- i. My sex/gender does not affect the care I receive from my primary care provider.
- j. My sexual history does not affect the care I receive from my primary care provider.
- k. My beliefs do not affect the care I receive from my primary care provider.
- l. My race/ethnicity does not affect the care I receive from my primary care provider.
- m. My personal qualities (such as personality) do not affect the care I receive from my primary care provider.

28. Please rate your agreement or disagreement with the following statements regarding your experience with your primary care provider(s).

PATIENT PERCEPTIONS

66

RESPONSE SCALE: strongly disagree, disagree, neither agree nor disagree, strongly agree, does not apply to me.

- a. I feel that I can trust my primary care provider enough to talk to them about my problems.
- b. I feel that my primary care provider acts like they don't have time for me.
- c. I feel that my primary care provider acts like they don't care about me.
- d. I feel that my primary care provider acts like they don't want to hear about my problems.
- e. I feel that my primary care provider acts like they can't be bothered by me or my problems.
- f. I feel that my primary care provider doesn't listen when I ask for help.
- g. I feel that my primary care provider acts like my problems aren't that important, could be worse, or doesn't require any attention.
- h. My primary care provider acts in an angry way towards me.
- i. My primary care provider blames me when things go wrong.

Section 6: Medical History

The following questions are about your medical history and current health status.

29. Do you suffer from Chronic Pain? Chronic pain is any pain that lasts for six months or more.

- a. Yes
- b. No
- c. Unsure

30. Do you suffer from any of the following illnesses? Select all that apply (If you have none of these, please leave the question blank or enter your illness/disorder in the box labeled "other").

- a. Endometriosis
- b. Adenomyosis
- c. Vaginismus
- d. Chronic Fatigue Syndrome
- e. Digestive Disorders (IBS, colitis, celiac, etc.): _____
- f. Migraines
- g. Heart conditions: _____
- h. Infertility

PATIENT PERCEPTIONS

67

i. Neurological Disease(s): _____

j. Cystic Fibrosis

k. Other: _____

31. Do you feel that you have suffered in the past or are currently experiencing mental health issues?

a. Yes

b. No

c. Unsure

32. Have you ever been diagnosed with any mental health disorder?

a. Yes

b. No

c. Unsure

33. Have you ever been diagnosed with any of the following disorders or do you feel that you suffer from any of the following disorders? Select all that apply.

a. Major Depressive Disorder (MDD)

b. Seasonal Affective Disorder (SAD)

c. Persistent Depressive Disorder (PDD)

d. Post-Traumatic Stress Disorder (PTSD)

e. Generalized Anxiety Disorder (GAD)

f. Social Anxiety Disorder

g. Specific Phobias

h. Panic Disorder

i. Postpartum Disorder (PPD)

j. Obsessive-Compulsive Disorder (OCD)

k. Bipolar Disorder

l. Anorexia/Bulimia

PATIENT PERCEPTIONS

68

- m. Substance Use Disorder (SUD)
- n. Alcoholism
- o. Somatic Symptom Disorder (SSD)
- p. Body Dysmorphic Disorder (BDD)
- q. Other: _____
- r. None

Section 7: Chronic Pain Grade Scale

PARTICIPANTS WHO RESPONDED WITH HAVING CHRONIC PAIN OR A CHRONIC PAIN DISORDER RECEIVED THE FOLLOWING SIX ITEMS (35-40)²:

34. How would you rate your pain on a 0-10 scale at the present time, this is right now, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?²

(INSERT SLIDING SCALE FROM 0-10)

35. In the past six months, how intense was your worst pain rated on a 0-10 scale (rated as above)?²

(INSERT SLIDING SCALE FROM 0-10)

36. In the past six months, on average, how intense was your worst pain rated on a 0-10 scale (rated as above)? (That is your usual pain at times you were experiencing pain.)²

(INSERT SLIDING SCALE FROM 0-10)

37. About how many days in the last 6 months have you been kept from your usual activities (work, school, housework) because of this pain?²

- a. None
- b. Some
- c. More than half the days
- d. Most days
- e. Every day

PATIENT PERCEPTIONS

69

38. In the past six months, how much has this pain changed your ability to take part in recreational, social, and family activities where 0 is 'no change' and 10 is 'extreme change'?²

(INSERT SLIDING SCALE FROM 0-10)

39. In the past six months how has this pain changed your ability to work (including housework) where 0 is 'no change' and 10 is 'extreme'?²

(INSERT SLIDING SCALE FROM 0-10)

Section 8: Women's Health Items

PARTICIPANTS WHO SELECTED 'FEMALE' AS THEIR SEX/GENDER RECEIVED THE FOLLOWING QUESTIONS (41-54):

The following questions are about your experiences with your menstrual cycle and experiences with addressing women's health concerns with your primary care provider.

40. Have you ever been or are you currently pregnant?

- a. Yes
- b. No

41. Are you currently taking or using any type of contraceptive?

- a. Yes
- b. No

42. Please select the type(s) of contraceptive(s) you are currently using. Select all that apply.

- a. Condoms
- b. IUD (Intrauterine Device)
- c. Implant
- d. Cervical Cap
- e. The Pill or Mini-Pill
- f. Contraceptive Diaphragm
- g. Vaginal Ring

PATIENT PERCEPTIONS

70

- h. Contraceptive Patch
- i. Emergency Contraceptive
- j. Natural Family Planning
- k. Sterilization
- l. Other: _____
- l. None

44. Are you using contraceptives to treat any of the following problems? Select all that apply.

- a. Endometriosis
- b. Adenomyosis
- c. Excessive Bleeding
- d. Menstrual Pain
- e. Vaginismus
- f. Polycystic Ovarian Syndrome (PCOS)
- g. Acne
- h. Other: _____
- i. None
- j. Prefer not to say

45. If you are using other methods to treat any of the problems mentioned above, please list those methods below (e.g., medications or therapies):

46. Rate your pain during your period with the scale below using the slider; “0” is no pain at all and “10” is the worst pain you have ever experienced.

(INSERT SLIDING SCALE FROM 0-10)

47. Rate the amount of bleeding you experience during your period. With “0” being very light periods, and “10” being excessively heavy periods. Light bleeding is only needing to change

PATIENT PERCEPTIONS

71

your pad, tampon, or other devices as directed by the brand. Excessively heavy bleeding is considered having to change your pad, tampon, or other device once per hour.

(INSERT SLIDING SCALE FROM 0-10)

48. Have you ever addressed any menstrual issues with your primary care primary provider?

- a. Yes
- b. No

49. Have you ever felt that your menstrual pain and/or bleeding was so severe that you needed to address it with your primary care provider?

- a. Yes
- b. No
- c. Does not apply

50. Has your menstrual pain and/or bleeding been so severe that you have sought urgent/emergency care?

- a. Yes
- b. No

51. Please respond to the following statements with your level of agreement regarding your experiences with your primary care provider.

RESPONSE SCALE: Strongly disagree, disagree, somewhat disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, strongly agree, does not apply to me

- a. My primary care provider understands my menstrual-related issues.
- b. My primary care provider listens to and takes into account what I need to control my menstrual-related symptoms.
- c. I feel that I can talk to my primary care provider about my menstrual cycle and/or issues with my menstrual cycle.
- d. My primary care provider is flexible with the types of birth control they prescribe and is willing to prescribe what I want.

PATIENT PERCEPTIONS

72

- e. My primary care provider gives me multiple treatment options to address my menstrual-related problems and explains the risks in a way that I can understand.

52. Do you feel comfortable speaking to your primary care provider about your sexual health?

- a. Yes
- b. No

53. If you responded “no” to the above question, please use the space below to explain why you do not feel comfortable speaking to your primary care provider about your sexual health.

54. Please feel free to use the space below to talk about your past or current experiences receiving care for women’s health concerns (e.g., birth control, menstrual-related concerns, etc.).

Section 9: Men’s Health Items

PARTICIPANTS WHO SELECTED ‘MALE’ AS THEIR SEX/GENDER RECEIVED THE FOLLOWING QUESTIONS (56-63):

The following questions are about your sexual health and experiences with your primary care provider in addressing men’s health concerns.

55. Please select the type(s) of contraceptive(s) that you are currently using. Select all that apply.

- a. Condoms
- b. Vasectomy
- c. Experimental Male Birth Control
- d. Other: _____
- e. None

56. Do you suffer from any of the following sexual dysfunctions?

- a. Erectile Dysfunction

PATIENT PERCEPTIONS

73

- b. Premature Ejaculation
- c. Delayed or Inhibited Ejaculation
- d. Retrograde Ejaculation
- e. Low Libido (reduced interest in sex)
- f. Other: _____
- g. I do not have a sexual dysfunction

57. Have you ever felt that your sexual health issues were so severe that you needed to address them with your primary care provider?

- a. Yes
- b. No
- c. Does not apply

58. Have you ever addressed any sexual health concerns with your primary care provider?

- a. Yes
- b. No

59. Please rate the following statements regarding your experiences with addressing your sexual health concerns with your primary care provider(s).

RESPONSE SCALE: Strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, strongly agree, does not apply

- a. My primary care provider understands my sexual health concerns and issues.
- b. My primary care provider listens to and takes into account what I need to address my sexual health concerns.
- c. I feel that I can talk to my primary care provider about my sexual health and/or issues with my sexual health.
- d. My primary care provider is flexible with the treatments they are willing to prescribe and is willing to prescribe what I want.
- e. My primary care provider gives me multiple treatment options for my sexual health issues and explains the risks in a way that I understand.

PATIENT PERCEPTIONS

74

60. Do you feel comfortable speaking to your primary care provider about your sexual health concerns?

a. Yes

b. No

61. If you responded to “no” to the above question, please use the space below to explain why you do not feel comfortable speaking to your primary care provider about your sexual health.

62. Please feel free to use space below to talk about your past or current experiences receiving care for your men’s health issues (e.g., male contraceptive options, sexual health-related issues, etc.).

Section 10: Resources Given

ALL PARTICIPANTS RECEIVED THE FOLLOWING INFORMATION ABOUT
HEALTHCARE OPTIONS (64-67):

63. The following information is a website operated by the U.S. Department of Health and Human Services where you can find a local community center that may have low-cost health care options available to you in your area. If you feel that you need help in finding affordable health care, please visit this website to see if you have a community center in your area that may help provide you with the services that you need.

<https://www.healthcare.gov/community-health-centers/>

PATIENT PERCEPTIONS

75

64. If you feel distressed or are interested in learning about where you can receive affordable mental health services, please visit the website listed below. The Substance Abuse and Mental Health Services Administration (SAMHSA) provides free information about referrals and treatment options near you. Included on this website is a phone number you may use to anonymously speak with a representative from SAMSHA that could direct you to where you may find mental health services and an online locator that you can use to find providers near you.

<https://www.samhsa.gov/find-help/national-helpline>

65. If you are a student at the University of Alaska Anchorage (UAA), you have options available to you where you can receive health care and mental health services. Below is a link to the UAA website that has information about the policies and options available to you as a UAA student.

<https://www.uaa.alaska.edu/students/health-safety/health-counseling-center/policies-faq.cshtml>

66. The following link is a website for the Full Spectrum Health outpatient clinic in Anchorage, Alaska. Full Spectrum Health aims to provide healthcare services to LGBTQ+ individuals. If you are in Anchorage and would like to seek healthcare from a provider or learn more about some of the services available to you, please use the link below.

<http://www.fullspectrumhealthak.com/>

67. If you are an LGBTQ+ individual that is seeking an appropriate provider, Outcare Health can help you find a provider that is competent in providing services. Outcare Health provides free information to find providers near you or other resources in your state to receive other services.

<https://www.outcarehealth.org/#about>

Survey Adaptation Sources

- ¹Anderson, L.A., & Dedrick, R.F. (1990). Development of the trust in physicians' scale: A measure to assess interpersonal trust in patient-physician relationships. *Psychological Reports*, 67(3), 1091-1100. doi: <https://doi.org/10.2466/pr0.1990.67.3f.1091>
- ²Dixon, D., Pollard, P., & Johnston, M. (2007). What does the chronic pain questionnaire measure? *Pain*, 130(3), 249-253. doi: 10.1016/j.pain.2006.12.004
- ³Adapted from: Ridd, M.J., Lewis, G., Peters, T.J., & Salisbury, C. (2011). Patient-doctor depth of relationship scale: Development and validation. *Annals of Family Medicine*, 9(6), 538-545. doi: <https://doi.org/10.1370/afm.1322>